



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

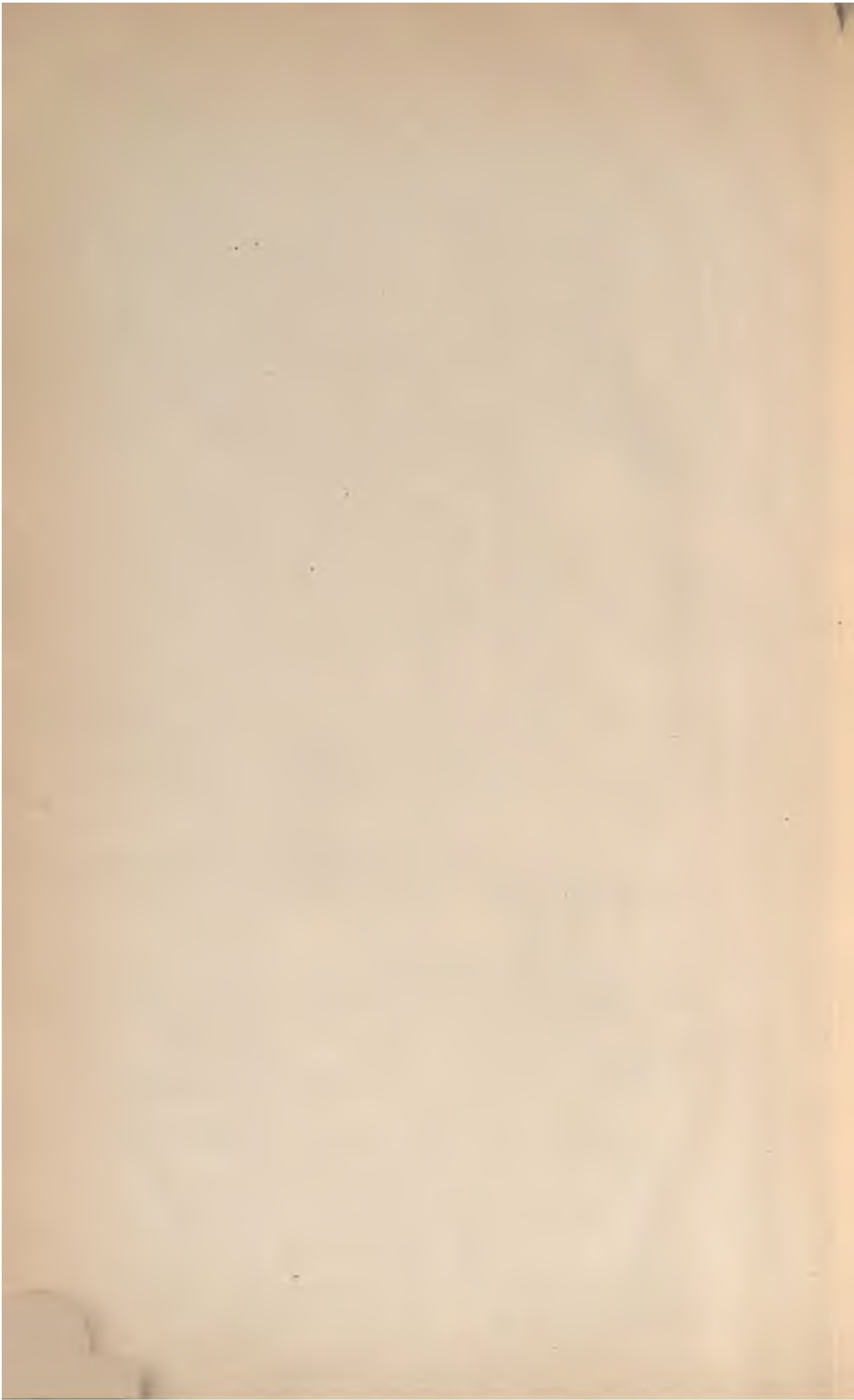
LIBRARIES



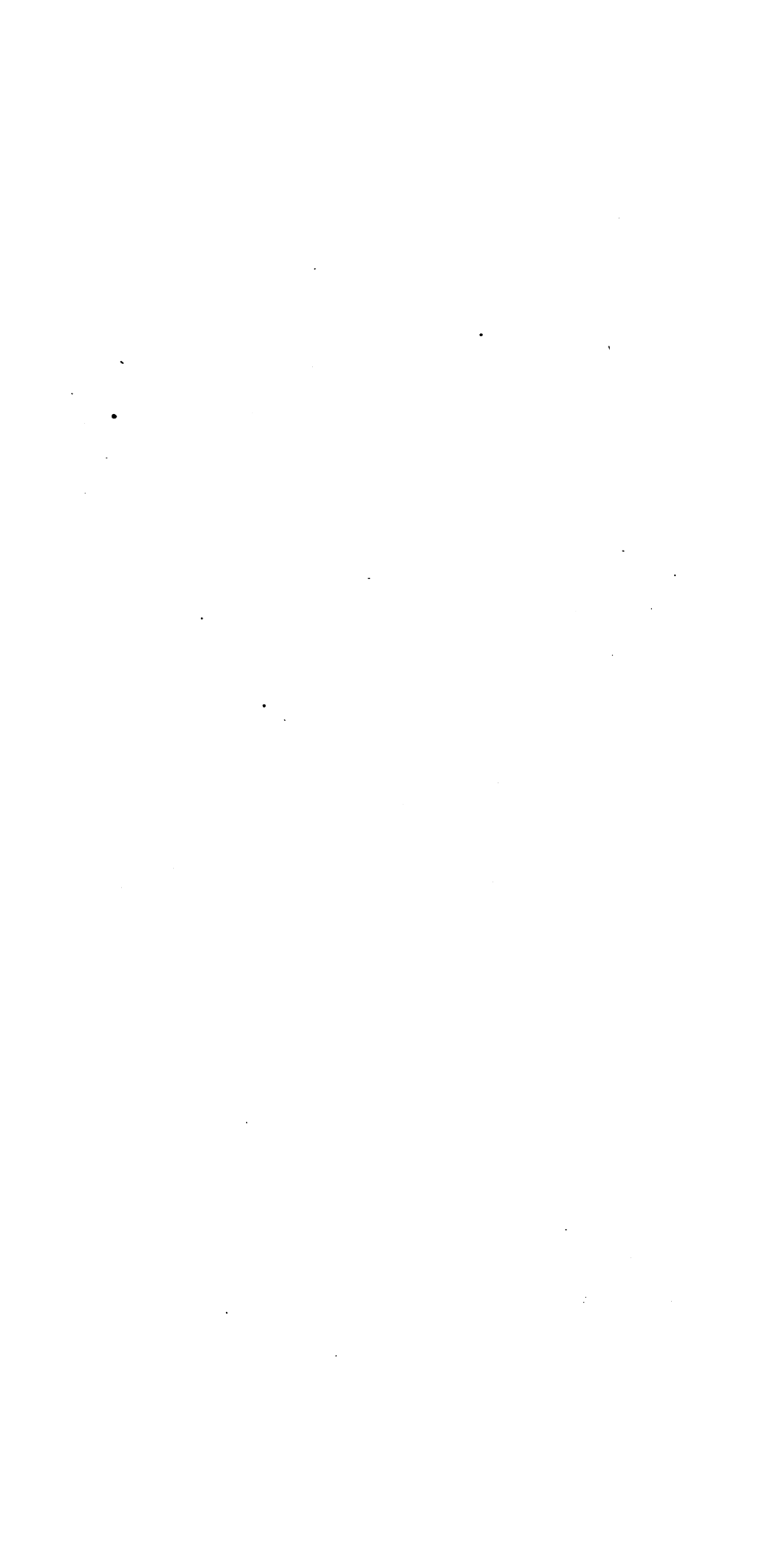
74029 9











# ELEVENTH ANNUAL REPORT



DEPARTMENT OF

## PUBLIC WORKS

REPORT

CITY COUNCIL OF THE CITY OF CHICAGO.

1936-1937

Report Year Ending December 31, 1936.

V D D A

CHICAGO, ILL.

PRINTED BY THE CHICAGO LITHOGRAPH CO., 1937



# ELEVENTH ANNUAL REPORT



OF THE

DEPARTMENT OF

# PUBLIC WORKS

TO THE

CITY COUNCIL OF THE CITY OF CHICAGO,

FOR THE

Fiscal Year Ending December 31, 1886.

---

CHICAGO:

M. B. KENNY, PRINTER, 200 CLARK STREET.

1887.



# Department of Public Works.

## CITY OF CHICAGO.

COMMISSIONER,

W. H. PURDY.

SECRETARY,

D. S. MEAD.

### HEADS OF BUREAUS.

#### ENGINEERING:

CITY ENGINEER, . . . . . S. G. ARTINGSTALL.

#### SEWERS:

SUPERINTENDENT. . . . . O. H. CHENEY.

#### STREETS:

SUPERINTENDENT, . . . . . L. A. MCGANN.

#### SPECIAL ASSESSMENTS:

SUPERINTENDENT, . . . . . H. J. JONES.

#### WATER RATE COLLECTIONS:

SUPERINTENDENT, . . . . . J. P. HAND.

#### MAPS:

SUPERINTENDENT, . . . . . F. A. DEMMLER.

#### ACCOUNT:

DEPARTMENT BOOK-KEEPER, . . . . . F. C. MEYER.

CHIEF CLERK WATER RATES, . . . . . JOHN M. FANNIN.

WATER RATE ASSESSOR, . . . . . T. PATTISON.

WATER PERMIT CLERK, . . . . . H. G. NAPER.

CASHIER WATER RATES, . . . . . J. W. LYONS.

REGISTRAR WATER RATES, . . . . . W. S. MAHER.

METER RATE CLERK, . . . . . W. H. REED.

IN CHARGE OF PRIVATE DRAINS, . . . . . B. F. DAVENPORT.

ENGINEER IN CHARGE NORTH PUMPING WORKS, F. TRAUTMANN.

ENGINEER IN CHARGE WEST PUMPING WORKS, . . . . . H. MASON.

ENGINEER SOUTH BRANCH RIVER PUMPING WORKS, H. WELCH.

ENGINEER N. BRANCH RIVER PUMPING WORKS, W. J. TURNBULL.

SUPERINTENDENT WATER METERS, . . . . . G. J. BAKER.

BRIDGE REPAIRS, . . . . . G. R. BRAMHALL.

LAKE CRIB KEEPER, . . . . . C. MCKEE.



# INDEX.

---

## COMMISSIONER'S REPORT.

---

	PAGE.
Extension of Water System.....	13
Extension of Sewerage System.....	14
Street Improvements.....	14
Maps and Plats.....	15
Miscellaneous Work.....	16
Special Assessments Prepared.....	16
Contracts.....	17
Financial.....	19
General Appropriation.....	20
Water Fund, From.....	20
Balance.....	21
Water Works.....	22
North Pumping Works.....	22 and 81
West Pumping Works.....	23 and 93
Pipe System.....	23
Water Meters and Engines.....	24 and 151
Water Works Receipts and Expenditures.....	25
Bonded Dept of Water Works.....	30
Water Supply, The.....	31 to 48 and 91

	PAGE.
Sewers .....	82
Maintenance .....	83
Total Cost of Sewers.....	34
Bonded Sewer Debt.....	34
River Improvement Bonds.....	35
North Branch Pumping Works.....	36
South Branch Pumping Works.....	36
Test Trial of Engines.....	37
Ogden Dam, The.....	51
Traffic Tunnel.....	51
Bridges and Viaducts .....	53
Streets.....	53
Street Railways.....	56
Sidewalks .....	57
Street Cleaning.....	58
Street Lamps.....	59
Parks.....	61
Special Assessments.....	62
New City Buildings.....	63

---

#### ENGINEER'S REPORT.

---

Water Supply.....	65
Rainfall for Year.....	73
North Pumping Works.....	75
Fuel.....	77
Pumping Expenses.....	78
New Hydrants.....	82
New Stop Valves.....	82

## INDEX.

7

	PAGE.
West Pumping Works.....	88
Construction .....	97
Water Pipe extension.....	98
Traffic Tunnels.....	51 and 138
River and Dredging. ....	138
Height of Water in Lake and River.....	139
Bridges and Viaducts.....	141
Quality of Water.....	147
Extensive North Pumping Works.....	149
Lake Tunnels.....	150
Shore Inlet....	150
Water Meteres.....	152
Hydraulic Elevators.....	153
Fullerton Avenue Pumping Works.....	153
Canal Pumping Works .....	155
Buildings for Fire Department.....	157

---

## SEWERAGE DEPARTMENT.

---

Sewers.....	159
-------------	-----

---

## BUREAU OF STREETS.

---

Streets.....	181
Street and Alley Improvement.....	181
Miles of Streets Improved.....	192
Amount of Different Pavements.....	190
Lumber.....	193
Repaving .....	195

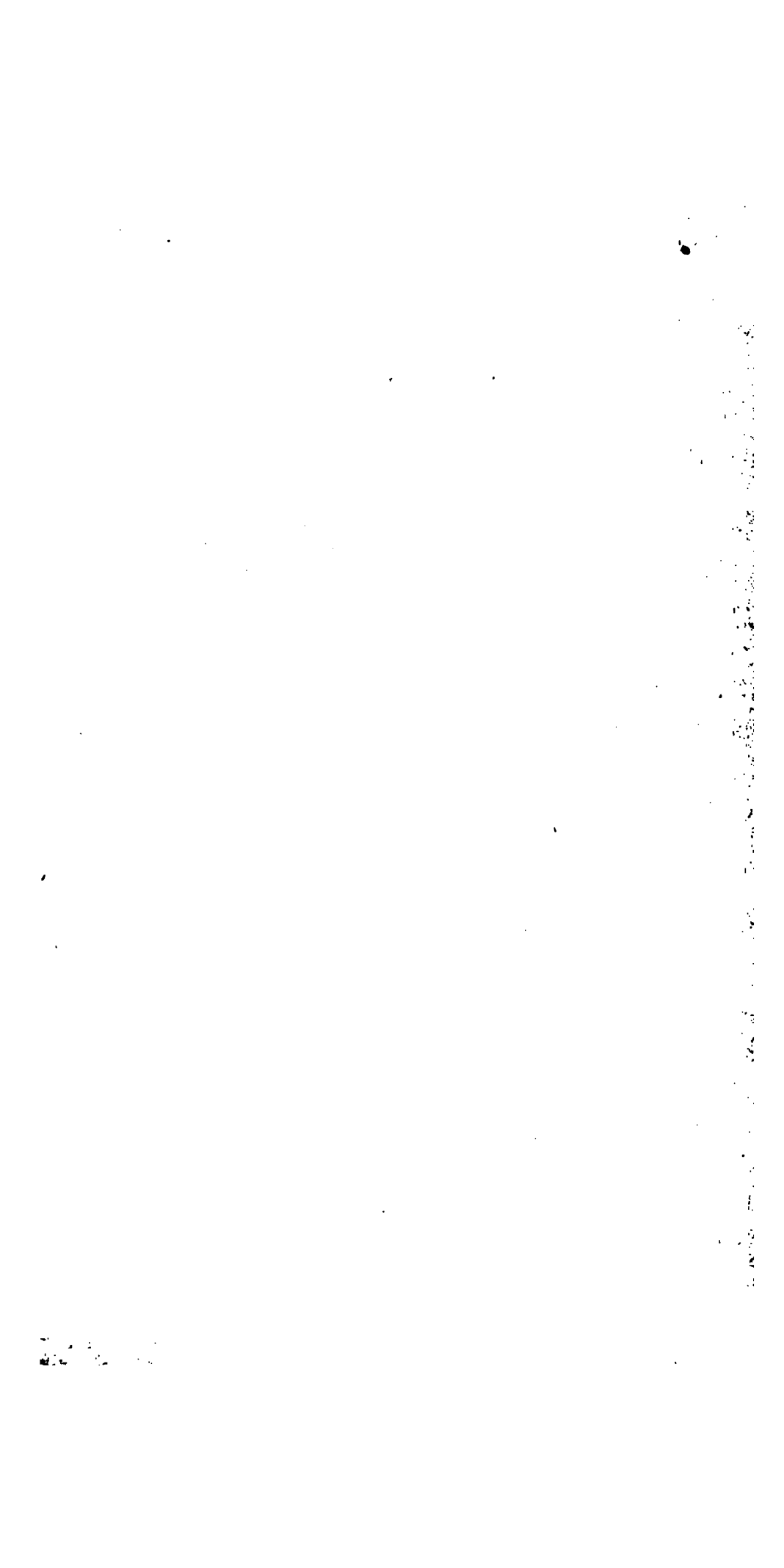
	PAGE.
Unimproved Streets.....	185
Improved Streets Cleaned.....	196
Permits for Opening Streets.....	197
• Permit for Obstruction of Streets.....	199
Parks .....	200
House Moving .....	201
Street Lamps.....	203
Sidewalks.....	208
Horse Railways.....	210
Special Assessment.....	213
Summary.....	251

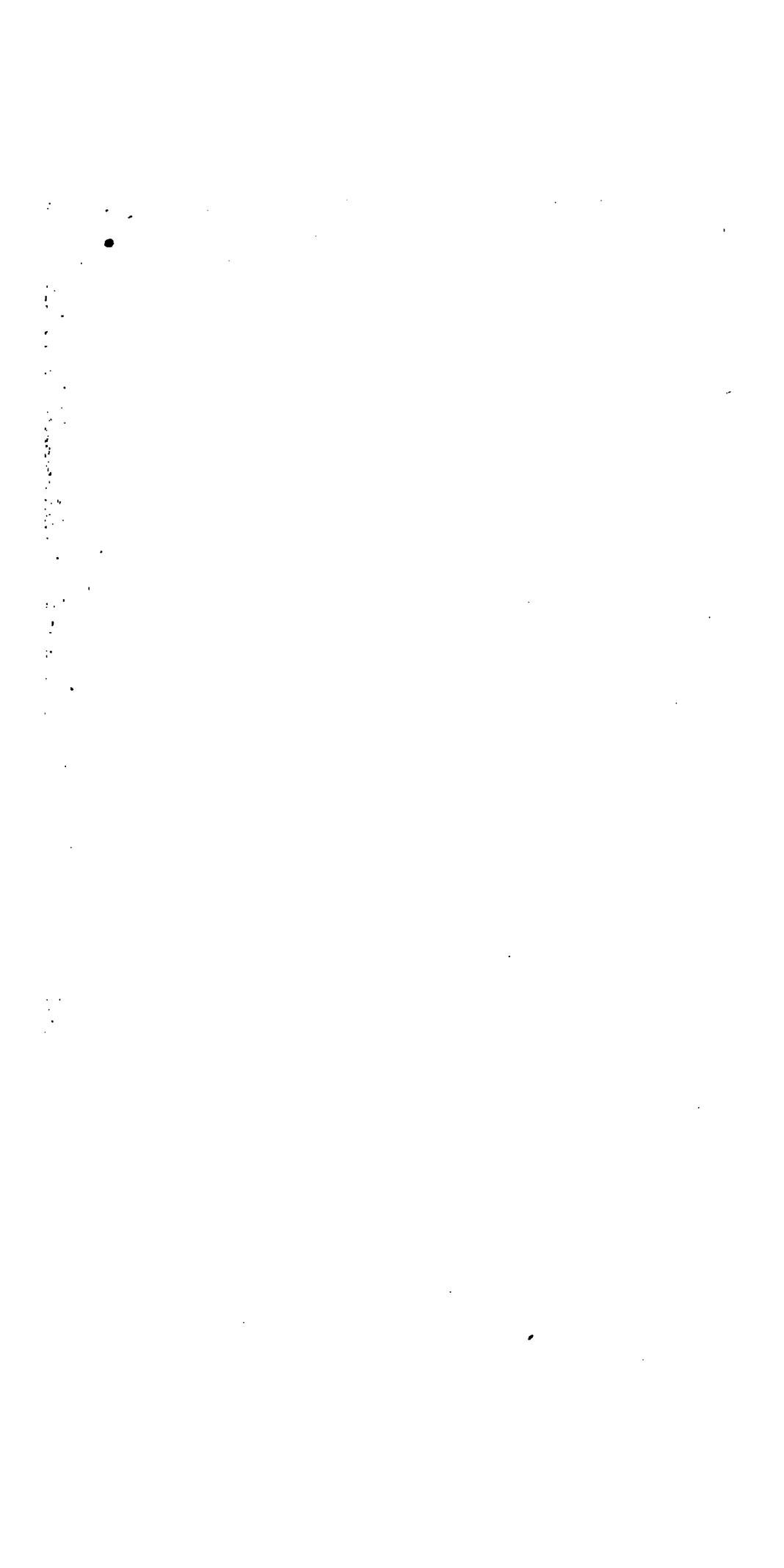
---

BOOK-KEEPER'S STATEMENT.

---

Water Fund.....	255
Sewerage Fund.....	270
Appropriation Fund.....	279
Trial Balance .....	308





Compliments of  
GEO. B. SWIFT,  
COMMISSIONER OF PUBLIC WORKS.

REPORT  
OF THE  
Commissioner of Public Works  
CITY OF CHICAGO.

---

OFFICE OF THE COMMISSIONER, }  
CITY HALL. }

*To the Honorable the Mayor and City Council of  
the City of Chicago:*

GENTLEMEN:—In compliance with the Ordinances of the city, I hereby respectfully present to your Honorable Body, this the Eleventh Annual Report, representing the extent and cost of the various improvements undertaken by the city, under the immediate supervision of the Department of Public Works, for the year ending December 31, 1886.

On the 31st of January last, this department lost an efficient officer in the retirement of Dewitt C. Cregier, Esq., after serving the city with marked abil-

ity and fidelity as Commissioner of Public Works for a period of four years. His intimate connection with the City Government, holding high positions of trust for more than thirty-two years, his thorough and familiar knowledge of the growth of the city, and the development and extent of the public improvements carried forward and completed, under the supervision of this Department, rendered his services invaluable.

Appreciating the eminent ability and integrity of Mr. Cregier as a public officer, his Honor, Mayor Harrison, with great reluctance accepted his resignation. Those with whom he had been associated for many years in the public service no less regret the absence of his wise counsel and genial companionship.

On the retirement of Mr. Cregier as Commissioner, the City Council on February 1st following, passed an ordinance conferring upon the Mayor the power and authority to perform the duties of Commissioner and also to appoint a person to act as deputy until such time as a Commissioner of Public Works should be appointed and qualified as provided by the general ordinances of the city.

The present incumbent was appointed as such deputy under the conditions of the ordinance referred to, and performed the duties of such office until the 28th day of June last, when he was appointed and confirmed as Commissioners of Public Works.

The report herewith submitted represents in detail the various classes of work performed under the immediate supervision of the heads of bureaus, to which your special attention is invited. The investigation of which, I trust, will not only afford satisfactory information, but will establish a proper appreciation of the services of those under whose personal supervision the duties and responsibilities connected with this branch of the public service, have been so faithfully and efficiently executed.

#### EXTENSION OF WATER SYSTEM.

30 9-10 miles of water pipe, from 4 to 36 inches in diameter, have been added during the year, making a total of 596 2-100 miles in use at the close of the year.

236 new water valves have been added; total  
in use . . . . . 4,432

407 new fire hydrants have been added; total  
in use . . . . . 5,350

7 fire cisterns have been added; total in use . . . . . 41

8,083 new house service taps have been added;  
total in use . . . . . 106,771

8,083 new house service pipes have been added;  
total in use . . . . . 106,771

263 new water meters have been added; total  
in use . . . . . 3,085

28 new hydraulic elevators; total in use . . . . .	505
Number of service taps inserted in water mains, including retaps . . . . .	9,553

There was furnished to the city during the year, 35,693,242,885 gallons of water, a daily average of over 97,789,206 gallons.

#### EXTENSION OF SEWERAGE SYSTEM.

20 miles of brick and pipe sewers, from 12 inches to 8 feet in diameter, have been constructed during the year, making a total in use of . . . . .	455 miles
734 new catch-basins were added, making to- tal number . . . . .	14,478
716 man-hole chambers added; making total number . . . . .	16,298
Old catch-basins raised to grade . . . . .	1,659
Old man-hole chambers raised to grade . . . . .	1,546
Old catch-basins and man-holes repaired . . . . .	426
Number of catch-basins cleaned . . . . .	15,276
Sewers cleaned . . . . .	284 miles
House-drains laid . . . . .	20 miles

#### STREET IMPROVEMENTS.

There were 830,716.87 square yards or 43.93 miles of street pavement laid during the past year.

There were 142,868 square yards of street pavement repaired; 0.83 miles of street planked.

There were 143,297 square yards of pavement laid by Street Railway Companies in streets occupied by their tracks.

Total number of miles of paved streets	
in the city .....	277.77 miles
New sidewalks constructed .....	39.99 "
Sidewalks reconstructed .....	75.02 "
Sidewalks repaired .....	41.76 "
Total sidewalks in city .....	878.79 "
Streets cleaned .....	3,313.35 "
Number of aprons, crossings, culverts, etc.,	
built .....	8,432
Street lamps erected (gas) .....	1,417
Street lamps erected (oil) .....	769
Total number street lamps in the city .....	20,034
Street lamps repaired .....	31,919
Number of buildings removed .....	884

#### MAPS AND PLATS MADE.

For new sub-divisions .....	194
For opening, widening and vacating streets	
and alleys .....	112
For special assessments, street and law de-	
partments .....	1,471
For miscellaneous purposes .....	300
Total plats made .....	2,077

## TOTAL ASSESSMENTS PREPARED.

For improvement of streets and alleys.....	214
For private drains.....	94
For water service pipes.....	120
For street and alley openings.....	23
For new sidewalks.....	320
For gas lamps.....	154
For oil lamps.....	85
Total.....	<u>1,010</u>

## MISCELLANEOUS WORKS.

Constructing superstructure of viaduct over railroad tracks at Lake street.

Constructing sub-structure of viaducts over railroad tracks at Twelfth street. Also superstructure of viaduct for same locality.

Constructing fire engine houses on the following named streets: Warren avenue, Stanton avenue, Thirty-third court, Fifth avenue and Franklin street.

Constructing a police station on Thirty-fifth Street.

Constructing steel bridge at Twelfth street.

Constructing inlet pier at North Pumping Works. Also iron roof on new building at the same locality.

Material for constructing House of Correction.

Erecting light-house at North pumping Works.

Constructing new bridge at State street.

### CONTRACTS.

Contracts were entered into by the city under the supervision of this Department during the past year for various classes of material and general improvements, aggregating a total expenditure of \$2,632,826.-45, as represented in the following statement:

173 street and alley improvement contracts, aggregating.....	\$1,278,458 69
104 water service pipe contracts, aggregating .....	59,556 91
89 private drain contracts, aggregating.....	52,653 33
1 sweeping and cleaning improved streets contract, aggregating .....	94,397 30
12 contracts for bridges and viaducts, aggregating.....	293,748 51
10 contracts for maintenance of water system, aggregating.....	131,994 62
5 contracts for completion of City Hall, aggregating.....	29,380 93
12 contracts for construction of sewers, aggregating.....	142,194 88
Amount carried forward.....	<u>\$2,082,385 17</u>

Amount brought forward . . . . .	\$2,082,385 17
3 contracts for oak and pine lumber, aggregating. . . . .	21,695 83
6 contracts for constructing engine houses and police stations, aggregating. . . . .	137,374 00
1 contract for sewerage and water teaming, aggregating. . . . .	41,002 07
5 contracts for cast iron water pipe, aggregating. . . . .	147,310 29
1 contract for iron roof New Pumping Works, aggregating. . . . .	7,592 00
5 contracts for constructing House of Correction, aggregating. . . . .	19,897 91
3 contracts for street lamp posts, street signs and glass, aggregating. . . . .	17,418 18
1 contract for constructing shore inlet, aggregating. . . . .	36,000 00
4 contracts for coal at Fullerton avenue and Canal Pumping Works, aggregating. . . . .	81,500 00
5 contracts for coal for city hall, bridges, parks, etc., aggregating. . . . .	39,051 00
1 contract, miscellaneous, aggregating. . . . .	1,600 00
<u>441</u> Total amount of contracts . . . . .	<u>\$2,632,826 45</u>

## FINANCIAL.

Statement showing the amount appropriated by the City council, and amounts from other sources to be expended for public improvements under the supervision of this Department for the year 1886.

Balance January 1st, 1886, to credit of water, sewerage and general appro- priation fund . . . . .	\$1,366,902 39
From general appropriation for 1886 . . .	1,480,074 62
From public library . . . . .	40,000 00
From street lamps and other funds . . .	82,186 10
From private parties, money advanced . .	35,413 08
From water revenue, including tapping permits . . . . .	1,405,051 78
From drain permits and drain layers licenses . . . . .	40,153 40
From railroad companies on account of viaducts and bridges . . . . .	191,571 33
From private parties for labor and ma- terial . . . . .	136,745 84
From house moving permits . . . . .	4,420 00
From vouchers deposited back and mis- cellaneous items . . . . .	1,500 73
From special assessments . . . . .	3,307,567 99
Total . . . . .	<u>\$8,091,587 26</u>

Of this amount there has been expended as follows:

From general appropriation, sewerage and City Hall Fund in 1886. For bridges and viaducts, dredging, street cleaning, public buildings, tunnels, Canal pumping works, Fullerton avenue pumping works, parks, work for private parties, salaries, City Hall, constructing and maintaining sewers and catch basins.....\$1,889,586 43

#### FROM WATER FUND.

For water supply pipe extension . . . . .	\$ 318,746 48	
For private work by meter department...	47,004 04	
For extension of North Pumping Works....	161,562 30	
For water and drainage commission.....	32,819 78	
For new shore inlet...	43,636 39	
For maintainance of water system, operating pumping works, cost of collecting taxes and miscellaneous items.....	495,113 95	
For interest on water loan bonds.....	264,814 15	1,363,697 09

For street improve-  
ments, street open-  
ings, sidewalks, pri-  
vate drains, water  
service pipes and  
lamp posts..... 1,436,989 66

For rebate, (excess of  
assessments over cost  
of improvements)  
abatements to prop-  
erty owners doing  
their own work, land  
damages and assess-  
ments held over and  
annulled by council. 1,870,578 33    3,307,567 99

## BALANCE.

December 31, 1886, to credit of water, sew- erage and general ap- propriation funds...	1,530,735 75
Total.....	<u>8,091,587 26</u>

## WATER WORKS.

The total quantity of water supplied during the year 1886, was 35,693,242,885 gallons, being an average of 97,789,706 gallons per day.

During July the daily average was 102,865,118 gallons under a head of 104.85 feet. The greatest quantity pumped for one day during the year was 116,079,740 gallons, on the 23d of January. The smallest quantity pumped was on the 9th of May, being 74,540,950 gallons, a difference of 41,538,790 gallons. There was also six days during the year when the amount pumped was from 110 to 112 million gallons.

The expenses due to pumping are \$212,413.34.

## NORTH PUMPING WORKS.

(SIX ENGINES.)

Total quantity of water pumped at this station during the year was 16,238,854,625 gallons. Daily average nearly  $44\frac{5}{10}$  million gallons, under a head of 108.8 feet, and something over  $6\frac{1}{10}$  millions less per day than the average of 1885.

During the month of July the daily average was 49 million gallons.

The expenses due to pumping are	\$119,042 40
Other expenses at these works including coal on hand, stores on hand, general repairs, etc . . . . .	4,030 31
Total expenditures . . . . .	<u>\$123,072 71</u>

## WEST PUMPING WORKS.

(FOUR ENGINES.)

Total quantity of water pumped during the year was 19,454,388,260 gallons, being an average of 53,299,694 gallons per day, under a head of 100.9 feet.

Expenses due to pumping are,	\$93,370 94
------------------------------	-------------

Other expenses at these works,	3,083 67
--------------------------------	----------

Total expenditures.....	<u>\$96,454 61</u>
-------------------------	--------------------

## PIPE SYSTEM.

Water pipes have been laid during the year as follows:

4 inch .....	23,875 feet
6 " .....	90,779 "
8 " .....	50,423 "
12 " .....	13,973 "
16 " .....	1,990 "
24 " .....	3,846 "
36 " .....	5,490 "
Total .....	<u>190,376 feet</u>

The same being equal to 36.05 miles. Small pipe taken up or abandoned, 5.01 miles. Net pipe added to the system during the year, 30.9 miles, making a total of 596.02 miles of pipe laid in the city at the close of the year.

Fire hydrants put in during the year.....	438
Hydrants taken out and replaced by others of different sizes.....	31
Net number of hydrants added to the system.	407
Total number of fire hydrants now in use....	5,350
Stop valves put in during the year.....	257
Stop valves taken out and replaced by others of different sizes.....	21
Net number of stop valves added to the system	236
Total number now in use.....	4,432

#### WATER METERS AND ENGINES.

Number of meters put in during the year....	263
Numbers of meters removed during the year.	75
Net increase.....	188
Total number of meters now in use.....	3,085
Number of elevators and other water engines supplied during the year.....	28
Total number of water engines now in use...	505

The revenue derived from water measured by these meters and engines for the past year, amounts to \$475,781.04, an increase of \$19,918.75 over the amount collected for the same last year.

# WATER WORKS RECEIPTS AND EXPENDITURES FOR 1886.

## RECEIPTS.

Water rates collected (including delinquents) .....	\$ 1,374,837 32
Water service cocks (permits and plumbers' licenses).....	30,214 46
Water meters, labor, etc. for private parties .....	47,405 65
Water pipe and private work at shop .....	6,663 93
Advances to lay water pipe .....	11,236 08
Miscellaneous .....	4,714 41
Total.....	<u>\$ 1,475,071 85</u>

## EXPENDITURES.

For salaries and other expenses, water collection office .....	\$129,651 41
For other salaries and office expenses paid from water fund .....	5,559 96
For service cocks .....	29,874 60
“ meters, fitting and private works .....	47,004 04
“ interest on water loan bonds ...	264,814 15
“ water pipe, lead and etc .....	318,746 48
“ water works repairs .....	86,501 12
“ North Pumping Works .....	123,072 71
Amount carried forward ....	<u>\$1,005,224 47</u>

Brought forward .....	\$1,005,224 47
For North Pumping Works extension .....	161,562 30
“ West Pumping Works .....	94,479 41
“ New Shore Inlet .....	43,636 39
“ water and drainage commission .....	32,819 78
“ Lake Tunnel Crib .....	4,556 44
“ Water Works Stable .....	164 01
“ advances for laying water pipes refunded .....	17,792 83
“ water rates refunded .....	497 48
“ miscellaneous .....	2,963 98
Total .....	<u>\$1,363,697 09</u>
Receipts over expenditures .....	111,374 76
Total .....	<u><u>\$1,475,071 85</u></u>

Total cost of the Water Works of the city to Dec. 31, 1886, is as follows:

Cost up to May 6th, 1861, when the works were transferred from the Board of Water Commissioners to the Board of Public Works.. \$1,020,860 21

## EXPENDITURES SINCE 1861.

Cost of water pipe laid .....	\$6,498,571 66
“ North Pumping Works .....	880,257 97
“ West Pumping Works .....	894,565 75
“ first lake water tunnel .....	464,866 05
“ second lake water tunnel .....	415,709 36
“ land water tunnel .....	542,912 63
“ lake crib for water tunnels .....	70,253 31
“ lake shore aqueduct .....	42,871 17
“ Water Works shops .....	25,551 73
“ Water Works stock .....	29,318 00
“ water reservoir fence .....	1,702 87
“ addition to stables .....	1,019 48
“ new shore inlet(not compl't'd) .....	43,636 39
Total .....	<u>\$10,931,396 58</u>

Total revenue from water rents to  
Dec. 31st, 1886 .....

\$18,246,441 52

Total operating expenses and main-  
tenance to Dec. 31st, 1886, in-  
cluding interest (\$5,930,539 73)  
on bonded debt and bonds can-  
celled .....

13,303,592 52

Total surplus revenue over total ex-  
penditures .....

\$4,942,849 00

Total cost of the entire Water Works  
to Dec. 31st, 1886, is .....

\$10,931,396 58

Paid for as follows:

From general taxes.	\$2,713,878	53	
From water loan			
bonds, 6 per cent..	133,000	00	
From water loan			
bonds, 7 per cent..	3,490,000	00	
From water loan			
bonds, 3.65 per			
cent.....	333,000	00	
From water loan			
bonds, cancelled..	858,000	00	
From surplus reve-			
nue.....	3,403,518	05	\$10,931,396 58
			<hr/>
Total surplus revenue over expendi-			
tures.....			\$4,942,849 00

Accounted for as follows:

Cash balance in Treas-			
ury, Dec 31st, 1886.	\$1,239,945	66	
Paid toward Water			
Works construction	3,403,518	05	
Suspended accounts:			
(D. A. Gage, Treas.,			
and Duncan, Sher-			
man & Co., N. Y.).	180,292	72	
American Exchange			
Nat. Bank, N. Y..	124,390	05	
			<hr/>
Carried forward..	\$4,948,146	48	\$4,942,849 00

Brought forward.	\$4,948,146 48	\$4,942,849 00
F. C. Meyer, book-keeper (discharged men's fund) . . . . .	300 00	
J. W. Lyons, cashier, (petty cash) . . . . .	691 88	
Meter Dept. stock on hand . . . . .	10,082 31	
Tapping department stock on hand . . . .	4,744 75	
Shop and stable stock on hand . . . .	5,634 77	
	<hr/>	\$4,969,600 19
Less amount due depositors for hydrant wrenches . . . . .	\$790 00	
Less amount advanced by private parties to lay water pipes in non-paying districts	25,961 19	
	<hr/>	
	\$26,751 19	\$4,942,849 00

## BONDED DEBT OF WATER WORKS.

Water loan bonds outstanding December 31st, 1886,  
bearing 7 per cent. interest and will mature as follows:

July 1, 1888.....	\$150,000 00	
July 1, 1889.....	225,000 00	
July 1, 1890.....	268,000 00	
July 1, 1892.....	821,000 00	
July 1, 1894.....	541,000 00	
July 1, 1895.....	1,485,000 00	
	<hr/>	\$3,490,000 00

Bearing 6 per cent. mature as follows:

July 1, 1897.....	\$ 50,000 00	
July 1, 1898.....	82,000 00	
	<hr/>	\$132,000 00

Bearing  $3\frac{65}{100}$  per cent mature as follows:

July 1, 1902.....	383,000 00	
Grand total outstanding.....	<hr/>	3,955,000 00

Net cash balance to credit of water

fund, December 31st, 1886..... \$1,239,945 66

The total interest paid on water loan

to January 1st, 1887, is..... 5,930,539 73

The following table shows the amount of water furnished to the city, and the revenue per million gallons received annually from the year 1858 to 1886, inclusive:

YEAR.	Million Gallons Furnished.	Revenue.	Revenue per Milli'n Gallons.
1858.....	1,092	\$102,178 85	\$93 57
1859.....	1,415	122,753 50	86 70
1860.....	1,717	131,162 73	76 39
1861.....	1,766	131,035 10	74 15
1862 (15 months).....	2,705	188,448 25	85 00
1863.....	2,336	192,246 39	82 29
1864.....	2,523	224,902 57	89 14
1865.....	2,778	253,114 49	91 11
1866.....	3,169	302,017 59	95 30
1867.....	4,232	338,929 28	80 08
1868.....	5,375	420,686 94	78 26
1869.....	6,801	476,968 24	70 13
1870.....	7,945	539,180 19	67 86
1871.....	8,423	445,834 64	52 93
1872.....	10,051	544,465 90	54 17
1873.....	11,723	708,804 32	60 46
1874.....	13,903	705,926 64	50 77
1875 (9 months).....	10,957	635,996 54	58 04
1876.....	15,346	771,940 38	50 30
1877.....	19,047	908,509 64	47 70
1878.....	19,564	944,190 97	48 31
1879.....	20,557	922,001 26	44 85
1880.....	21,002	865,618 35	41 21
1881.....	23,331	936,922 07	40 16
1882.....	24,150	1,049,576 90	43 46
1883.....	26,742	1,142,868 54	42 73
1884.....	29,286	1,204,338 74	41 12
1885.....	33,451	1,339,038 00	40 03
1886.....	35,693	1,374,837 32	38 52

Under the various ordinances and orders of the City Council, amounts have been rebated on water rates during the past year as follows:

On educational, religious and charitable	
under ordinance November 21st, 1884	\$ 9,421 90
Municipal and board of education, un-	
der ordinance of July 30, 1885.....	11,560 66
On private residences by various orders	•
passed by the City Council.....	140 32
	<hr/>
Total amount rebated.....	\$21,122 88
	<hr/> <hr/>

### SEWERS.

The sewerage system has been increased in the various divisions of the city during the past year as follows:

Constructed in the West Division.....	12.122 miles
Constructed in the South Division.....	5.825 miles
Constructed in the North Division.....	1.597 miles
	<hr/>
Total .....	19.544 miles
	<hr/> <hr/>
Number of catch-basins built.....	734
Number of sewer man-hole chambers built.	723

The cost of constructing sewers and catch-basins during the year is as follows:

West Division .....	\$123,495 50
South Division.....	40,069 91
North Division.....	14,081 83
Total.....	<u>\$177,647 24</u>

Total number of miles of sewers in the city

December 31, 1886.....455,328

Total number of catch-basins..... 14,478

Total number of man-hole chambers..... 16,298

### MAINTENANCE.

The total cost of cleaning and repairs, and cost per mile, together with the number of catch-basins and man-hole chambers, and miles of sewers in the other divisions respectively, is as follows:

DIVISIONS.	Miles of Sewers.	No. of Catch-basins.	No. of Man-hole Chambers.
West.....	251.044	7,898	8,939
South.....	125.427	4,019	4,517
North.....	78.857	2,561	2,842
Total.....	455.328	14,478	16,298

There was expended for repairs during the year, \$15,068.30 being an average cost of \$33.09 per mile.

There was expended for cleaning \$51,144.76, making an average cost of \$112.32 per mile. The total cost of both repairs and cleaning was \$66,213.06, leaving the total average cost \$145.41 per mile.

Of the 455.328 miles of sewers constructed, 234.746 miles are of brick, and 220.528 miles are of vitrified pipe.

### TOTAL COST OF SEWERS, ETC.

DIVISIONS.	Miles.	Cost.	Average Cost per Mile.
West.....	251.044	\$3,719,840.07	\$14,817.48
South.....	125.427	1,817,506.28	14,490.55
North.....	78.857	1,222,081.12	15,497.43
Totals.....	455.328	\$6,759,427.42	\$14,845.18

### BONDED SEWER DEBT.

Sewerage Bonds outstanding December 31st, 1886, bearing 7 per cent. interest, maturing as follows:

July 1st, 1888.....	\$343,000 00
“ “ 1889.....	44,000 00
“ “ 1892.....	490,000 00
“ “ 1894.....	785,000 00
“ “ 1895.....	13,000 00
Total.....	<u>\$1,675,000 00</u>

July 1st, 1890, bearing $4\frac{1}{2}$ per cent.	
interest .....	489,500 00
July 1st, 1904, bearing 4 per cent. in-	
terest .....	458,000 00
Total .....	<u>\$2,622,500 00</u>

## RIVER IMPROVEMENT BONDS.

Bonds outstanding December 31st, 1886, bearing 7 per cent. interest.

July 1st, 1890 .....	\$250,000 00	
" " 1892 .....	249,000 00	
" " 1893 .....	500,000 00	
" " 1894 .....	346,000 00	
" " 1895 .....	1,263,000 00	\$2,608,000 00
Grand total outstanding .....		<u>\$5,230,500 00</u>

Total interest paid on sewerage bonds  
to January 1st, 1887 .....

\$4,421,871 00

Total amount paid as interest on river  
improvement bonds to January 1st,  
1887 .....

3,397,060 00

The whole amount paid as interest on  
water, sewerage and river im-  
provement bonds combined .....

13,749,470 73

## NORTH BRANCH RIVER PUMPING WORKS.

At these works there have been 6,977,015,025 cubic feet of water forced from the lake into the river at a cost for operating and maintenance of \$16,080.18. There has been no water forced from the river into the lake during 1886, as in former years.

## SOUTH BRANCH RIVER PUMPING WORKS.

These works have been in daily use throughout the year, excepting at short intervals during the freshet season. The total expense of operating the same during the past year is \$40,973.40.

The total cost of these works previously reported is \$253,838.31. Amount expended during the year for account of construction is \$28,162.18, making the total cost of the works \$282,000.49.

The investigation of the Commission appointed to test the workmanship and capacity of these works in April, 1885, proved the incapacity of the pumps to develop the duty guaranteed by the builders, as will be seen by referring to the Commissioner's Tenth Annual Report. After such test, extensive alterations and improvements were made in the machinery by the contractors, when a second test was ordered, which took place in December, 1886, and resulted in the acceptance of the works by the city.

The following is a report of the test by the Board of Experts:

W. H. PURDY, Esq.,

*Commissioner of Public Works,  
City.*

SIR:—In carrying out the duty which you have imposed upon us relative to the test of the new Canal Pumping works, we, the board of engineers appointed by you for the purpose of ascertaining the quality and capacity of said works, have the honor to report as follows:

The character and scope of our investigations have been determined by the terms of the contract between N. F. Palmer, Jr. & Co., and the City of Chicago, dated August 16, 1881, and by your letter of instructions dated December 8, 1886, which reads as follows:

BENEZETTE WILLIAMS, Esq.,

*Chairman of Committee of Experts.*

DEAR SIR:—In conducting the test of the machinery for Canal Pumping Works, we desire that you determine the duty developed by machinery, when the engines are working from 100 to 125 revolutions per minute, with a steam pressure at the engine of not exceeding 80 lbs. per square inch above the atmosphere, and using good quality of eastern bituminous

coal. The duty shall be performed without any deduction from the coal consumed of clinkers and ashes, or of any friction of machinery, friction of water in pumps and connections therewith for use of steam for feed pumps, or any purpose due to the operation of the machinery as a whole; also to determine the capacity of said engines, boilers, pumps and appendages, in cubic feet of discharge per minute, under a maximum lift of 8 feet. One or more of the engines and pumps may be tested at one time, at the option of the experts.

Your committee will also determine and report if the design, material and workmanship, either as a whole or in part, are excellent, ample and sufficient for the purpose intended, particularly on those parts to which exception was made by the commission of experts dated May 22, 1885, a copy of which may be found in the accompanying 10th Annual Report of the Department of Public Works, page 54; also report on the change and modification made in said machinery and pumps by the contractors, since the report of said experts.

Respectfully,

W. H. PURDY;

*Commissioner of Public Works.*

The following extracts from the contract cover all the essential provisions which we are called upon to consider:

"For the construction and erection of the four sets of Centrifugal Pumping Machinery, having an aggregate capacity to raise 60,000 cubic feet of water per minute 8 feet high, and to perform a duty of 45,000,000 lbs. of water raised one foot high by the consumption of each 100 lbs. of good eastern bituminous coal."

#### TEST TRIAL.

"The machinery will be tested for a period of not less than 48 hours by experts paid and appointed by the city, and entirely satisfactory to the contractors, and the contractors guarantee that at such test trial, the machinery shall perform a duty of not less than 45,000,000 lbs. by the consumption of each 100 lbs. of good eastern bituminous coal, the steam pressure at the engines not exceeding 80 lbs. per square inch above the atmosphere, and the pumps and engines working from 100 to 125 revolutions."

"The duty to be developed by said combined machinery working under the conditions stated, to be not less than forty-five (45) million pounds of water, raised one foot high for every one hundred pounds of good quality eastern bituminous coal consumed. The said duty shall be performed without any deduction

from the coal consumed of clinkers or ashes, or any friction of machinery, friction of water in pumps and connections therewith, for use of steam for feed pumps, or any purpose due to the operation of the machinery as a whole."

"At such time within a year after the machinery is put in regular operation, as the Commissioner of Public Works may determine, a test trial of the strength, capacity and duty of the engines, boilers, pumps and appendages shall be made by such experts as the said Commissioner may appoint for the purpose. One or more of the engines and pumps may be tested at one time. The period of time for such test shall not be less than 48 consecutive hours."

The day appointed for the test was December 9th, but on visiting the premises it was found that the weir to be used in determining the quantity of water pumped, would not be ready until the following day. It was also manifest at this time, that there was danger that the weir would fail by the banks washing out around it before the test could be concluded.

On the evening of the 9th, the two south engines, numbers 3 and 4, were started and run during the night.

On the morning of the 10th, before beginning the test, the Board ascertained the leakage of the weir, which was found to be about 2,824 feet per minute. The steam and vacuum gauges in the boiler and

engine house, had been previously tested and corrected, and the fore and back bay guages, the scales in the boiler room, and hook guage at weir had been checked.

Accordingly at 9 A. M. on the 10th, the test began, but terminated suddenly at 10.30 A. M. by the bank washing out around the north end of the weir. On consultation with the City Engineer, Mr. Samuel G. Artingstall, it was decided to postpone the test until a new weir should be built.

On the morning of the 20th, a new weir having been built, the Board again met at the pumping works for the purpose of continuing the test. The first thing done was to ascertain the leakage of the weir, which was found to be 175 cubic feet per minute, after making all allowances for increased head.

The new weir consisted of a single opening, thirty feet in length, with the overflow six feet above city datum, built in such a manner as to conform strictly to the conditions of a perfect weir.

All other necessary preliminaries having been gone through, we began taking records at 12 M. of the 20th, and continued until 12 M., of the 21st. The test was then discontinued for two hours, being resumed again at 2 P. M. of the 21st, and continued until 10 P. M. of the same day. During the interval of discontinuance the fires were cleaned and freshly charged.

It had previously been decided to run during the test, only half the plant, consisting of the two south engines, Nos. 3 and 4, operating four pumps, they being supplied by the boilers in south boiler room. It was thought that as the north half is an exact duplicate of the south half, that the operation of one would fairly represent the works of the other, which was shown to be the case by the test of a former Board of Experts, so far as related to the boilers and engines.

The fact that there were no facilities for measuring the feed waters for the north half of the plant was the main consideration which led us to omit that part.

The fuel used was Piedmont bituminous coal. Observations of gauges in the engine and boiler room, and in the fore and back bays, were taken every 15 minutes and at the weir every 10 minutes.

The amount of feed water was determined by tank measurement, the temperature of each tank full being recorded. The capacity of the two tanks used had previously been ascertained by others to be 1,875 pounds.

At the conclusion of the test it was found that at the point where the discharge of water was shut off, the tanks held 1,840 pounds at a temperature of 152 degrees F. In the statement of results which follows, this weight has been used, the corrections for difference of temperature being applied.

In this statement the results have been divided into three periods; the first and second being periods of 12

hours duration and the third of 8 hours. Our reasons for doing this are two-fold. First, at the close of the first 12 hour period there was an increase in the height of water in back bay and hence a decrease in the head against the pumps, due to the cessation of a high wind, that, during this period had been blowing from the southwest, and which caused a change of lake level. This change of elevation as noted by the gauge in the back bay was 8-10 of a foot in four hours. Our second reason for making this division as to time is that during all the first 12 hours, and for the first 8 or 9 hours of the second 12 hour period, it was found that the records of the coal used were wholly erroneous. There being no provision made for storing coal outside of the boiler room it was necessary that unweighed coal should be stored in front of the boilers, separated by a low partition from the weighed coal. The firemen being all regular employes of the city, it did not occur to us that it was necessary to have more than one observer in the boiler room at a time. The records of the coal consumed during the first period were so clearly in error that as soon as possible on the morning of the 21st, a second observer was placed in the boiler room with the result that the recorded consumption of coal was increased approximately from about 1,200 pounds to over 1,400 pounds per hour.

It was then determined to continue the test under

such auspices that there could be no possible mistake as to the amount of coal which went into the furnaces. The result of this test is shown in the third period of 8 hours, the results of which we have used as a basis in determining duty; and have relied upon the rate of evaporation shown by this test, to determine the probable amount of coal consumed in the two previous periods of 12 hours.

Indicator cards were taken at intervals from engines 3 and 4 during first 12 hours and from No. 4 during remaining time. From these cards the indicated horse-power has been deduced.

The cross section of the fore bay above the weir was carefully measured and found to be 628 square feet and the velocity of approach 8-10 of a foot per second, which gives a head due to the velocity of 0.02 of a foot which has been added to the readings of the weir gauge.

The approach to one of the pumps of engine No. 4 is badly obstructed by a buttress of masonry that projects beyond the face of the wall, causing a material increase of head against the pumps; the effect of which is clearly shown by the fewer number of revolutions made by engine No. 4 than by engine No. 3. We have estimated this loss to be equivalent to an increase of head of 2-10 of a foot on all of the pumps and this amount has been added in the results given.

The weight of water with the sewerage held in solution and suspension, has been taken the same as

was ascertained at the first official test of the engines in May, 1885, viz: 62,611 pounds per cubic foot; the temperature in the two cases being the same, viz: 38 degrees F.

The average results of the observations taken, modified by the corrections made, are as shown in the following table for each period separately:

TABLE NO. 1.

	1st Period. 12 hours.	2nd Period. 12 hours.	3rd Period. 8 hours.
Head of water against pumps, in feet .....	8,504	7,862	7,724
Head of water over wier, in feet .....	2,942	3,010	2,985
Average pressure of steam at boilers, pounds .....	82.03	81.97	80.36
Average pressure of steam at engines, pounds .....	81.05	81.16	79.49
Average vacuum, inches ...	23.7	23.9	23.8
Revolutions engine No. 3 ...	72,445	72,318	47,667
Revolutions engine No. 4 ...	71,052	70,786	47,059
Revolutions per minute No. 3	100.62	100.04	99.31
Revolutions per minute No. 4	98.68	98.31	98.04
Total feed water in pumps. \.	210,524	201,051	136,493
Temperature of feed water, degrees F. ....	139.7	147.3	147.2
Coal as shown by records, pounds .....	14,600	16,000	.....
Coal as corrected, pounds....	19,280	18,294	12,400
Coal consumed per hour, pounds .....	1,607	1,524	1,550
Actual evaporation per pound of coal, pounds .....	10.92	10.99	11.01
Equivalent evaporation from and at 212 degrees, pounds	12.09	12.09	12.09

The following table gives the mean results of the operation of the engines during the test as derived from indicator cards.

TABLE NO. 2.

ENGINE NO. 3.	1st Period. 12 hours.	2nd Period. 12 hours.	3rd Period. 8 hours.
Piston speed per M. ....	570.17	.....	.....
Initial cylinder, initial pressure, top end.....	77.6	.....	.....
Initial cylinder, initial pressure, bottom end.....	78.6	.....	.....
Initial cylinder, terminal pressure, top end.....	22.0	.....	.....
Initial cylinder, terminal pressure, bottom end.....	18.4	.....	.....
Initial cylinder, mean effective pressure, top end.....	49.3	.....	.....
Initial cylinder, mean effective pressure, bottom end..	49.0	.....	.....
Expansion cylinder, initial pressure, top end .....	12.6	.....	.....
Expansion cylinder, initial pressure, bottom end.....	13.1	.....	.....
Expansion cylinder, terminal pressure, from vac. line, top end.....	12.1	.....	.....
Expansion cylinder, terminal pressure, from vac. line, bottom end.....	10.6	.....	.....
Expansion cylinder, mean effective pressure, top end.	14.2	.....	.....
Expansion cylinder, mean effective pressure, bottom end .....	13.6	.....	.....
Expansion cylinder, vacuum in pounds.....	11.95	.....	.....

TABLE NO. 2.—CONTINUED.

ENGINE NO. 4.	1st Period. 12 hours.	2nd Period. 12 hours.	3rd Period 8 hours.
Piston speed per M.....	559.20	557.09	555.55
Initial cylinder, initial pressure, top end.....	76.3	76.0	79.6
Initial cylinder, initial pressure, bottom end.....	70.8	76.0	81.3
Initial cylinder, terminal pressure, top end.....	22.3	21.0	22.3
Initial cylinder terminal pressure, bottom end.....	15.0	15.0	16.3
Initial cylinder mean effective pressure, top end.....	46.7	48.3	47.8
Initial cylinder mean effective pressure, bottom end.....	43.3	44.5	43.5
Expansion cylinder, initial pressure, top end.....	16.2	16.0	16.1
Expansion cylinder, initial pressure, bottom end.....	16.3	16.5	16.6
Expansion cylinder, terminal pressure, top end.....	11.2	11.5	11.0
Expansion cylinder, terminal pressure, bottom end.....	11.0	10.5	10.5
Expansion cylinder, mean effective pressure, top end.	14.5	14.9	14.5
Expansion cylinder, mean effective pressure, bottom end .....	15.1	15.3	14.9
Expansion cylinder, vacuum in pounds.....	11.8	11.5	11.8

TABLE NO. 3.

The following table gives the dimensions and capacity of the steam cylinders and piston rods of one engine:

	Initial Cylinder.		Expansion Cylinder.	
	Top.	Bottom.	Top.	Bottom.
Stroke in inches.....	34	34	34	34
Diameter of cylinders in inches.....	18	18	34	34
Diameter of piston rod in inches.....	2	2 $\frac{1}{8}$	2	2 $\frac{1}{8}$
Area of cylinder in square inches.....	254.47	254.47	907.92	907.92
Area of piston rods in square inches.....	3.14	6.49	3.14	6.49
Effective area of cylinders in square inches.....	251.33	247.98	904.78	901.43

The work done by the plant, deduced from the foregoing data is as given in the following:

TABLE NO. 4.

	1st Period. 12 hours.	2nd Period. 12 hours.	3rd Period. 8 hours.
Quantity of water pumped per minute in cubic feet . . . . .	29,829	30,847	30,473
Duty per 100 pounds of coal in foot pounds actual . . . . .	59,300,000	59,715,300	57,047,000
Mean indicated H. P. engine 3, initial cylinder . . . . .	211.93	.....	.....
Mean indicated H. P. engine 3, expansion cylinder . . . . .	216.93	.....	.....
Total mean indicated H. P. engine No. 3 . . . . .	428.86	.....	.....
Mean indicated H. P. engine 4, initial cylinder . . . . .	190.42	†195.47	191.89
Mean indicated H. P. engine 4, expansion cylinder . . . . .	226.17	†230.21	223.19
Total mean indicated H. P. engine No. 4 . . . . .	416.59	†425.68	415.08
Total indicated H. P. both engines . . . . .	845.45	.....	*842.16
Mean effective H. P. both engines . . . . .	481.30	460.00	446.60
Efficiency per cent. . . . .	57	.....	53
Coal consumed per indicated H. P. per hour . . . . .	1.90	1.80	1.87
Steam used per indicated H. P. per hour . . . . .	20.75	19.68	20.25

\*Interpolated from first 12 hours and engine 4 only.

†Results from one card only.

The following comparison of the foregoing data, exhibits the capacity and duty under different heads, in such manner as to make it plain that the pumps have fulfilled the requirements of the contract in both respects.

	1st Period. 12 hours.	2nd Period. 12 hours.	3rd. Period. 8 hours.
Head against pumps, feet. . . . .	8,504	7,862	7 724
Average revolutions both engines	99.65	99.17	98.67
Cubic feet of water pumped. . . . .	29,829	30,847	30,473
Duty, foot pounds per 100 lbs coal	59,300,000	59,715,300	57,047,000

Since the report of the former Board of Experts, made May 22, 1885, the contractors have practically rebuilt the pumps. having materially changed the blades in shape, and increased the size of inlet as shown in the drawings accompanying this report. They have also strengthened the main connecting rods as recommended in said report.

In conclusion, we are of the opinion that the design, material and workmanship in whole, and in part, are excellent, ample and sufficient for the purpose intended, and that the contract has been complied with in every essential respect.

We consider the contractors, and their engineer, Mr. A. A. Wilson, are deserving of commendation for the persistency and intelligence which they have shown in rectifying the former deficiencies of the plant.

Respectfully submitted,

BENEZETTE WILLIAMS,

W. W. BAILEY,

D. J. WHITEMORE.

*Chicago, January 4, 1887.*

#### OGDEN DAM.

There has been expended for the extension and maintainance of the Ogden Dam during the past year, \$3,390.90. The improvement made consists in placing a clay backing sixteen feet in width, secured by sheet piling on the inside of said dam. No changes have been made effecting the original height or length of the same. The improvements and additions made are considered adequate to render the structure permanent and of a nature to answer all purposes required of it.

#### THE TRAFFIC TUNNELS.

The condition of the tunnels under the river at Washington street and La Salle street, does not differ materially from that of former years.

The city has expended for maintenance and repairs the past year the following amounts, to-wit:

For the Washington Street Tunnel.....	\$4,361 66
For the La Salle Street Tunnel.....	3,164 57

Under an ordinance passed by the City Council February 8, 1886, permission was granted the Chicago Passenger Railway Company, to lay down and operate its tracks through the Washington Street Tunnel, conditioned upon the company keeping the same in repair.

Permission was granted the North Chicago Street Railroad Company, to lay down and operate its tracks through the La Salle Street Tunnel, under certain conditions contained in the ordinance passed by the City Council July 19, 1886.

The occupancy of these tunnels by the railroad companies under the ordinances referred to, will in addition to other valuable considerations, release the city from the expense of maintenance and repairs of the same.

## BRIDGES AND VIADUCTS.

The cost of maintaining these structures and widening sundry viaducts during the year are as follows:

For general repairs of bridges and viaducts.....	\$91,097 66
Of this amount there was collected from the Chicago and Great Western Railway Co., for labor and material, and from vessels for damage to bridges....	12,484 48
Total cost of repairs of bridges and viaducts.....	<u>\$78,613 18</u>

## STREETS.

During the year streets have been improved as follows:

Paved with cedar blocks.....	39.91 miles
“ “ sheet asphalt .....	0.18 “
“ “ macadam.....	1.35 “
“ “ asphalt blocks .....	0.28 “
“ “ granite blocks .....	1.75 “
“ “ cinders.....	0.19 “
Total number miles improved.....	<u>43.66 miles</u>
In addition to the above, streets were planked to the extent of .....	0.27 miles
Making a total of.....	<u>43.93 miles</u>

## DEPARTMENT OF PUBLIC WORKS.

DIVISION.	Square Yards.	Lineal Feet of Roadway.	Miles of Pavement laid in 1886.			TOTAL COST.			Average Cost Per Mile.	Total Miles of Pavement Laid in the City.			
			Amount Under Assessment.	Amount of Private Contracts.	Total.	Amount of Contracts.	Cost of Superintendence, Assessment, Etc.	Grand Total Cost.		Amount Previously Laid.	New Pavement Added in 1886.	Total Pavement in the City.	Miles of Pavement Relaid in 1886.
South.....	196,008.10	52,900.49	9.55	0.07	10.02	\$408,314.50	\$16,352.58	\$424,647.08	\$42,380.00	75.80	6.14	81.94	3.88
West .....	504,771.00	140,022.06	26.32	.....	26.32	689,067.40	27,502.70	716,570.10	27,227.62	124.40	20.97	145.38	21.4
North.....	129,636.72	30,043.01	6.68	0.64	7.32	181,076.79	7,243.07	188,319.86	25,726.76	45.76	4.63	50.39	2.65
Total.....	\$20,716.37	231,984.56	42.55	0.71	43.06	\$1,278,458.69	\$51,138.35	\$1,329,597.04	\$30,453.43	245.96	31.75	277.71	11.91

The following shows the kind of pavement in use in each division of the city, December 31st, 1886:

DIVISIONS.	Wooden Blocks.	Macadam.	Stone.	Asphalt Block.	Sheet Asphalt.	Graveling.	Cinders.	Grand Total.
	Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
North.....	47.71	1.19	0.53	.....	1.97	0.42	1.26	53.08
South.....	57.93	7.62	11.24	3.96	0.33	4.38	0.36	85.82
West.....	119.62	19.40	0.39	.....	0.82	2.64	7.85	150.72
Total.....	225.26	28.21	12.16	3.96	3.12	7.44	9.47	289.62

The above table includes 11.91 miles of streets repaved during the year, which deducted from the 289.62 miles done, leaves a total of 277.71 miles of paved streets in the city.

Repaving and repairs have been made on improved streets in each division of the city as follows:

South Division .....	20,408	square yards		
West      "      .....	17,586	"	"	
North     "      .....	7,383	"	"	
Total .....	45,377	"	"	
Amount of repairs by corporations	97,491	"	"	
Total in the city.....	142,868	square yards		

## STREET RAILWAYS.

During the year the various street railway companies have paved the portion of streets occupied by their tracks, as shown in the following table:

CORPORATIONS.	Boulder Stone, Square Yds	Granite Blocks, Square Yds	Wooden Blocks, Square Yds	Total Square Yards.
Chicago City Railway Co.....		16,791	17,100	33,891
Chicago W. Div. Railway Co	9,903	233	41,031	51,167
N. Chicago St. Railway Co..	10,650	500	.....	11,150
Chicago Passenger Ry. Co...	39,722	4,363	3,004	47,089
Total.....	60,275	21,887	61,135	143,297

The total miles of streets occupied and operated by the several railroad companies, are as follows:

North Chicago Street Railway Co.....	19.71 miles
Chicago City Railway Co.....	28.80 "
Chicago West Division Railway Co.....	53.20 "
Chicago Passenger Railway Co.....	9.20 "
Total.....	<u>110.91 miles</u>

## SIDEWALKS.

The following table indicates the various kinds of material used in the construction and repairs of sidewalks:

DIVISION.	MATERIAL.			Total Miles.	S de-walks Repair'd	Total Work.
	Wood.	Stone.	Concrete			
South.....	11.06	6.84	0.65	18.55	17.42	35.97
West.....	45.44	3.55	0.42	49.41	17.58	66.99
North.....	3.34	3.22	0.50	7.06	6.76	13.82
Totals.....	59.84	13.61	1.57	75.02	41.76	116.78

There was 39.99 miles of sidewalks constructed upon streets where walks were never previously laid. About 11.62 miles of the same varying in width from 4 to 16 feet was built by this department, and the remainder was constructed by contractors under special agreement with property owners.

The total number of miles of sidewalk laid in the city, including those constructed on highways, controlled by the Park Commissioners, is as follows:

	MATERIAL.			Total Miles.
	Wood.	Stone.	Concrete.	
City.....	786.59	77.17	13.61	877.37
Boulevards to West Parks. ....		6.06		6.06
Boulevards to South Parks. ....		9.79		9.79
Boulevards to Lincoln Park.....		0.75		0.75
Total Miles.....	786.59	93.77	13.61	893.97
Wood sidewalks replaced by stone and concrete.....				15.18
Making total number miles in city.....				878.79

### • STREET CLEANING.

3,331.51 miles of improved streets were swept and cleaned during the past year, under a contract between the city and Frederick W. Keator, for the sum of \$28.49 per mile, being a total cost of \$93,797.88. The work of cleaning was commenced on the 8th day of April, and discontinued on the 14th day of December, 1886.

## STREET LAMPS.

DIVISION.	GAS LAMPS.			OIL LAMPS.				
	No. of Gas Lamps in use in 1886.	No. of Gas Lamps added in 1886.	Total Number of Lamps.	No. of Oil Lamps in use in 1886.	No. of Oil Lamps added in 1886.	Total Number of Lamps.	Less Number Replaced by Gas Lamps.	Total.
West.....	8,152	853	9,005	2,109	272	2,381	236	2,145
South.....	3,809	376	4,185	898	447	1,345	60	1,285
North.....	2,608	188	2,796	634	50	684	66	618
Totals.....	14,569	1,417	15,986	3,641	769	4,410	362	4,048

Total number of street lamps in the city, 20,034.

## EXPENSES OF LIGHTING.

COMPANIES.	No. of Cubic Feet Consumed.	Amount.	Repairs, New Services, etc.	Lighting Cleaning and Extinguishing.	Thawing and Alcohol.	Total.
P. G. L. & C. Co....	175,676,254	\$253,089 36	\$15,789 60	\$44,951 42	\$6,964 52	\$320,814 90
C. G. L. & C. Co....	115,220,109	115,220 07	5,858 84	36,552 71	5,335 90	162,694 52

Total cost of lighting and maintaining gas lamps.		\$483,509 42
Illinois Street Gas Co., for material and lighting oil lamps .....		88,926 92
For lamp posts, repairing and making lamps, in- cluding glass .....	\$19,410 87	
Less amount received from Special Assess- ment Department .....	4,959 50	14,451 37
Total cost of lighting the city .....		<u>\$586,887 71</u>

The contract for gas per one thousand cubic feet  
was:

P. G. L. & C. Co., Jan. 1 to Dec. 31, 1886...	\$1 50
C. G. L. & C. Co., Jan. 1 to Dec. 31, 1886...	1 00

The total cost for gas per lamp was as follows:

#### WEST DIVISION.

For gas consumed, per lamp, per annum .....	\$31 24
For lighting and maintenance by the Co. ....	7 87
For new lamps and repairs by the city .....	0 94
Total. ....	<u>\$40 05</u>

#### NORTH AND SOUTH DIVISIONS.

For gas consumed, per lamp, per annum .....	\$17 20
For lighting and maintaining by Co. ....	7 08
For new lamps and repairs by city .....	0 94
Total .....	<u>\$25 22</u>

Cost of maintaining oil lamps for the year as per  
contract for each lamp ..... \$23 13

### PARKS.

The cost of maintaining the various public parks  
under the control of this department during the past  
year is as follows:

Lake Park .....	\$1,523 93
Ellis Park.....	785 41
Douglas Monument Square.....	675 80
Aldine Square .....	749 05
Vernon Park .....	60 00
Campbell Park.....	143 00
Union Square.....	389 75
Washington Square.....	1,975 35
Total expenditure on parks.....	<u>\$6,302 29</u>

## DEPARTMENT OF PUBLIC WORKS.

## SPECIAL ASSESSMENTS.

SPECIAL ASSESSMENTS HAVE BEEN LEVIED AS FOLLOWS:

DIVISION.	Improving Roadways of Streets and Alleys.		Laying Private Sewer Drains.		Laying Water Service Pipes.		Opening Streets and Alleys.		Constructing Sidewalks.		Gas Lamps.		Oil Lamps.		GRAND TOTAL	
	No. of Independent Assessments.	Amount.	No. of Independent Assessments.	Amount.	No. of Independent Assessments.	Amount.	No. of Independent Assessments.	Amount.	No. of Independent Assessments.	Amount.	No. of Independent Assessments.	Amount.	No. of Independent Assessments.	Amount.	No. of Independent Assessments.	Amount.
North .....	32	\$301,466 41	7	\$ 4,043 00	16	\$ 9,651 05	1	\$ 6,720 83	39	\$25,776 77	27	\$ 6,173 80	7	\$ 508 40	127	\$354,408 56
South .....	46	994,898 65	19	41,126 00	25	64,982 90	6	22,275 83	66	66,552 94	41	13,243 64	21	3,638 15	224	1,206,709 15
West.....	130	1,289,015 30	68	71,698 80	79	97,471 40	16	84,200 46	215	164,810 10	89	31,889 52	57	7,388 70	656	1,746,450 28
Totals .....	214	2,585,370 36	94	\$116,837 80	120	\$172,105 35	23	\$113,211 62	390	\$257,139 81	154	\$51,306 84	85	\$11,596 25	1010	\$3,307,567 99

## THE CITY HALL BUILDING.

The amount expended in the completion of the building during the past year is.....\$ 64,444 70  
 Total amount previously expended..... 1,621,501 69  
 Total expended to December 31, 1886. \$1,685,946 39

Amount due on uncompleted contracts

January 1, 1887.....\$ 720 00  
 Estimated amount necessary to fully complete the interior of the building..... 12,800 00  
 Estimated amount required to complete the city's portion of the rotunda..... 19,500 00

The report of the Commissioner of Buildings shows that during the past year there were 4,651 buildings erected, extending over an aggregate frontage of 113,144 lineal feet, or over 21 2-10 miles, at an estimated cost of \$27,040,382.50, the same being distributed in the three divisions of the city as follows:

DIVISIONS.	No. of Buildings Erected.	Aggregate Frontage in Feet.	Frontage in Miles	Estimated Value.
North.....	620	16,494	3.1	\$4,178,625 00
South.....	1,106	27,848	5.1	11,209,882 50
West.....	2,925	68,802	13.0	11,651,875 00
Totals.....	4,651	113,144	21.2	\$27,040,382 50

## COMPARISON WITH FOUR PREVIOUS YEARS.

1882.....	3,113	73,161	13.8	\$19,803,500 00
1883.....	4,086	85,588	16.2	21,875,000 00
1884.....	4,169	98,782	18.6	25,862,000 00
1885.....	4,638	108,850	20.6	24,339,875 00
1886.....	4,651	113,144	21.2	27,040,382 50
Totals for 5 years....	20,657	479,525	90.4	\$118,920,757 50

There were moved under the supervision of the Department of Public Works, 855 frame, and 29 brick buildings, being a total of 884, varying from one to four stories high, extending over a surface of 17,759 lineal feet, or over  $3\frac{1}{4}$  miles of frontage.

In conclusion, I take pleasure in extending my thanks to his Honor, Mayor Harrison, for his valuable counsel in all important matters connected with the business of this Department, and to the Honorable members of the City Council for their uniform courtesy in all official relations.

The honest and efficient endeavors of the heads of the various bureaus, with those associated with them in successfully carrying forward the important public improvements assigned to their supervision, is worthy of high commendation, and to them I desire to express my appreciation of their valuable services.

Respectfully,

W. H. PURDY,

*Commissioner of Public Works.*

## ENGINEER'S REPORT.

---

W. H. PURDY, Esq.,

*Commissioner of Public Works.*

SIR:—I present herewith the Eleventh Annual Report of the Bureau of Engineering, being for the year 1886:

### WATER SUPPLY.

The total quantity of water delivered to the city during the year is 35,693,242,885 gallons—a daily average of 97,789,706 gallons, or about 6.70 per cent. more than the average for the year 1885. During the month of July, the average daily quantity pumped was 102,865,118 gallons, which is the greatest of the year. In April the average daily quantity pumped was 89,622,639 gallons, which is the least of the year. The greatest quantity pumped in a single day was on

January 23d—116,079,740 gallons. The least quantity pumped was on May 9th—74,540,950 gallons. a difference of 41,538,790 gallons. For six months the monthly average is from a little over 100,000,000 to nearly 103,000,000 gallons.

During the year there were 164 days when the quantity pumped exceeded 100 million gallons and are distributed throughout the different months as follows: January 21 days; February 14 days; March 4 days; June 21 days; July 25 days; August 25 days; September 24 days; October 10 days and December 20 days. Of this number there were 49 days when the amounts exceeded 105 million gallons as follows:

January 11 .....	106,077,795
“ 12 .....	106,677,690
“ 13 .....	107,343,515
“ 14 .....	107,614,385
“ 20 .....	105,576,260
“ 22 .....	109,512,085
“ 23 .....	116,079,740
“ 24 .....	107,882,235
“ 25 .....	108,331,980
“ 30 .....	105,847,680
February 2 .....	108,163,735
“ 3 .....	111,379,870
“ 4 .....	110,648,800
“ 5 .....	112,225,185
“ 6 .....	109,205,155

June	11.....	106,312,820
"	12.....	109,791,830
"	15.....	108,313,660
"	21.....	105,730,750
"	28.....	105,714,835
"	29.....	107,516,985
"	30.....	107,931,355
July	1.....	106,523,895
"	2.....	106,017,775
"	3.....	107,984,085
"	6.....	110,589,290
"	7.....	108,937,370
"	24.....	105,459,690
"	26.....	105,231,985
"	27.....	105,736,020
"	28.....	107,436,320
"	29.....	107,825,470
August	9.....	106,424,075
"	10.....	106,406,305
"	20.....	105,275,255
"	21.....	106,456,375
"	26.....	106,127,530
"	27.....	108,317,970
"	28.....	108,978,580
September	4.....	106,996,305
"	6.....	106,735,690
"	7.....	106,500,050
"	8.....	105,020,620

December 3.....	107,399,555
“ 16.....	106,764,435
“ 27.....	107,166,510
“ 28.....	110,191,410
“ 29.....	109,502,085
“ 30.....	108,169,875

The following tabulated statement shows the operations in detail of both North and West Pumping Works during the year 1886.

OPERATIONS OF BOTH PUMPING WORKS COMBINED.

MONTHS. 1886.	No. of Days.	Total No of Gal- lons of Water Pumped per Month, less 5% per cent. for loss of Action.	Average No. of Gallons of Wa- ter Pumped per Day, less 5% per cent. for loss of Ac- tion.	Pounds of Coal Consumed per Month for Pumping.	Average No. of Pounds of Coal Consumed per Month for Pumping.	Average Head Against Pumps in Feet.
January...	31	3,085,343,135	99,527,198	5,173,040	166,872	105.6
February...	28	2,804,360,405	100,155,728	4,428,480	158,160	106.8
March.....	31	2,958,049,370	95,420,947	4,743,180	153,006	107.6
April.....	30	2,688,679,175	89,622,639	4,483,500	149,450	100.6
May.....	31	2,821,772,995	91,024,935	4,841,910	156,190	104.6
June.....	30	3,061,290,795	102,043,026	5,154,090	171,803	105.6
July.....	31	3,188,818,675	102,865,118	5,296,250	170,847	104.9
August....	31	3,162,334,610	102,010,793	5,165,410	166,623	103.5
September.	30	3,032,052,335	101,068,411	4,914,370	163,812	104.3
October....	31	3,024,081,770	97,551,025	4,925,320	158,881	104.5
November..	30	2,762,816,755	92,093,891	4,559,710	151,990	106.5
December..	31	3,103,642,865	100,117,511	5,199,570	167,728	104.5
Totals...	365	35,603,242,885	.....	58,884,830	.....	.....
General av. per M.....		2,974,436,907	.....	4,907,070	.....	.....
General av. per D.....		.....	97,789,706	.....	161,328	104.9

NOTE.—Coal for heating building and pumping out wells included in above statement. Anthracite coal used at the North Works and bituminous coal at the West Works.

The quantity of water pumped by both Works, and the cost of the same for the past two years was as follows:

YEAR.	PUMPING.		COST.	
	Total Number of Gallons.	Daily Average.	Total Cost.	Average Cost per Million Gallons.
1885	33,452,255,905	91 650,190	\$196,795 88	\$5 88 <sup>3</sup> / <sub>100</sub>
1886	35,693,242,885	97,789,706	212,413 34	5 95 <sup>1</sup> / <sub>100</sub>
Increase....	2,240,986,980	6,139,516	\$15,617 46	\$ 06 <sup>2</sup> / <sub>100</sub>

## DEPARTMENT OF PUBLIC WORKS.

TABLE SHOWING QUANTITY OF WATER PUMPED BY BOTH PUMPING WORKS COMBINED, EACH MONTH DURING PAST TEN YEARS.

MONTHS.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
January.....	1,582,902,385	1,561,006,068	1,984,699,694	1,597,144,633	2,045,483,094	1,825,693,493	2,397,281,870	2,553,536,065	2,947,915,900	3,085,343,135
February.....	1,404,949,448	1,401,548,987	1,758,754,626	1,533,195,562	1,872,139,080	1,724,637,947	2,628,122,940	2,280,000,000	2,831,812,780	2,804,390,405
March.....	1,543,433,780	1,566,311,019	1,929,889,148	1,675,170,272	1,950,668,691	1,926,851,744	2,605,974,480	2,416,256,615	2,927,562,145	2,958,049,370
April.....	1,531,896,815	1,379,902,942	1,590,367,146	1,658,718,639	1,802,701,896	1,832,587,568	2,087,973,690	2,174,058,090	2,680,725,175	2,688,679,175
May.....	1,628,002,813	1,421,128,064	1,639,993,231	1,781,045,267	1,807,887,027	2,000,359,257	2,140,635,205	2,305,090,420	2,676,617,045	2,821,772,995
June.....	1,506,655,865	1,524,233,984	1,576,121,096	1,813,621,318	1,870,242,288	2,057,911,294	2,172,518,075	2,290,858,220	2,691,576,215	3,061,290,795
July.....	1,733,282,814	1,903,916,563	1,785,393,119	1,917,530,346	2,148,595,588	2,161,455,262	2,343,731,680	2,462,298,300	2,637,601,005	3,188,818,675
August.....	1,782,442,419	1,907,143,614	1,804,750,489	1,898,248,864	2,231,316,996	2,179,598,631	2,376,804,630	2,713,985,865	2,898,428,355	3,162,354,610
September....	1,648,279,096	1,772,067,650	1,695,023,876	1,798,031,710	2,080,423,152	2,132,913,799	2,217,346,100	2,632,908,325	2,763,510,205	3,022,052,335
October.....	1,623,377,776	1,751,855,733	1,735,802,358	1,772,878,722	1,983,812,991	2,090,791,910	2,226,119,370	2,528,639,070	2,890,665,610	3,024,081,770
November....	1,509,481,581	1,631,523,798	1,550,482,037	1,705,297,141	1,801,799,714	2,014,994,663	2,050,891,540	2,358,616,985	2,578,944,370	2,782,816,755
December....	1,512,272,884	1,742,988,910	1,626,414,281	1,881,899,401	1,796,724,392	2,197,068,346	2,304,711,210	2,590,746,480	2,816,597,100	3,103,642,895
Totals.....	19,047,104,626	19,564,288,232	20,557,699,081	21,002,681,905	23,331,785,879	24,150,948,884	26,741,941,090	29,290,584,465	33,452,555,905	35,693,242,885

TABLE SHOWING TOTAL QUANTITY OF WATER PUMPED BY BOTH PUMPING WORKS COMBINED.  
TOGETHER WITH ANNUAL AND DAILY INCREASE IN QUANTITY AND RATE PER CENT.; ALSO THE GREATEST DAILY  
AVERAGE FOR A SINGLE MONTH FOR THE FOLLOWING YEARS.

YEAR.	Total Quanti- ty Pumped, (Gallons.	Annual Increase, Gallons.	Average Daily Quantity Pumped, Gallons.	Average Daily In- crease, Gal- lons.	Per Cent. of Annual In- crease.	GREATEST DAILY AVERAGE.	
						Month.	Gallons.
1876, .....	15,346,922,158	.....	41,931,481	.....	.....	December.....	47,063,724
1877, .....	19,047,104,636	3,700,182,478	52,183,892	10,252,411	24.45	July.....	55,912,350
1878, .....	19,564,288,232	517,183,506	53,600,789	1,416,897	2.71	August.....	61,520,762
1879, .....	20,557,690,981	993,402,749	56,322,441	2,721,652	5.07	January.....	64,022,571
1880, .....	21,002,681,905	444,990,924	57,384,376	1,061,935	2.16	July.....	61,855,495
1881, .....	23,331,785,879	2,329,103,974	63,922,700	6,538,324	11.09	August.....	71,977,967
1882, .....	24,150,943,884	819,158,005	66,166,969	2,244,269	3.51	September.....	71,097,136
1883, .....	26,741,941,090	2,590,997,206	73,265,592	7,098,623	10.72	February.....	79,575,819
1884, .....	29,286,584,465	2,544,643,375	80,017,990	6,752,398	9.52	September.....	87,763,610
1885, .....	33,452,255,905	4,165,571,440	91,650,190	11,632,200	14.22	February.....	101,136,170
1886, .....	33,693,242,885	2,240,986,980	97,789,706	6,139,516	6.70	July.....	102,865,118

**TABULAR STATEMENT OF THE CONSUMPTION AND WASTE OF WATER, RELATIVE PUMPING CAPACITY, POPULATION, PIPES, REVENUE, ETC.**

WATER DISTRIBUTED DAILY IN U. S. GALLONS.																								
YEAR.	Actual Supply.			Per cent of In-crease.	Estimate at cost.	Estimate of Increase.	Estimate made in 1851 based on 1850.	Quantity to each Inhabitant.	Per cent of In-crease.	Average Quantity per Mile of pipe.	Per cent of In-crease.	Capacity of Works.	Proportion of Pumping capacity supplied.	Amount collected.	REVENUE.			TAPS.			PIPE.			POPULATION.
	1858.	1859.	1860.												Per cent of In-crease.	Per cent of In-crease.	Number of Taps.	In Use.	Per cent of In-crease.	No. of Inhabits to each tap.	Miles of pipe Laid.	Miles of pipe in Use.	Per cent. of In-crease.	
1858	2,991,413	29.61	3,480,990	2,920,000	2,940,000	32.8	41.317	276,293	20,000,000	1 to 1.9	102,179	30.32	4,066	18.10	72.4	127	1,257	91,000	...					
1859	3,577,119	29.61	4,068,990	3,520,000	3,540,000	43.0	45.639	310,313	20,000,000	1 to 1.9	122,948	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1860	4,763,525	29.61	5,252,000	4,700,000	4,720,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1861	4,841,520	29.61	5,340,990	4,780,000	4,800,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1862	6,074,739	29.61	6,563,990	6,010,000	6,030,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1863	6,400,208	29.61	6,890,990	6,340,000	6,360,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1864	6,913,250	29.61	7,403,990	6,850,000	6,870,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1865	7,610,430	29.61	8,100,990	7,550,000	7,570,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1866	8,681,530	29.61	9,171,990	8,620,000	8,640,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1867	11,562,273	29.61	12,053,990	11,500,000	11,520,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1868	14,724,990	29.61	15,215,990	14,660,000	14,680,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1869	18,633,278	29.61	19,124,990	18,570,000	18,590,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1870	21,706,260	29.61	22,197,990	21,640,000	21,660,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1871	23,494,877	29.61	23,985,990	23,430,000	23,450,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1872	27,536,819	29.61	28,027,990	27,470,000	27,490,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1873	32,117,312	29.61	32,608,990	32,050,000	32,070,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1874	38,090,352	29.61	38,581,990	38,030,000	38,050,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1875	39,844,556	29.61	40,335,990	39,780,000	39,800,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1876	41,631,481	29.61	42,122,990	41,570,000	41,590,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1877	52,183,892	29.61	52,674,990	52,120,000	52,140,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1878	53,000,789	29.61	53,491,990	52,940,000	52,960,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1879	56,323,441	29.61	56,814,990	56,260,000	56,280,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1880	57,384,376	29.61	57,875,990	57,320,000	57,340,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1881	63,922,700	29.61	64,413,990	63,860,000	63,880,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1882	66,100,969	29.61	66,591,990	66,040,000	66,060,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1883	73,205,592	29.61	73,696,990	73,140,000	73,160,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1884	80,017,060	29.61	80,508,990	79,960,000	80,000,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
1885	91,690,190	29.61	92,181,990	91,630,000	91,650,000	43.0	61.087	410,386	20,000,000	1 to 1.9	131,102	30.32	6,511	18.10	85.1	127	1,257	91,000	...					
Average for 27 years.	13.80	10.75	162,180	107,910	108,000	118.9	107.910	270,872	134,000,000	1 to 1.4	1,479,697	10.50	103,731	12.22	18.35	21.8	565.1	4,011	7.97					

\* Estimated upon the increase from 1858 to 1878.

\* Municipal year changed from April 1st to January 1st.

\* Estimated upon the increase from 1880 to 1883.

† Decreased.

‡ Added 6,160, the average from 1880 to 1885.

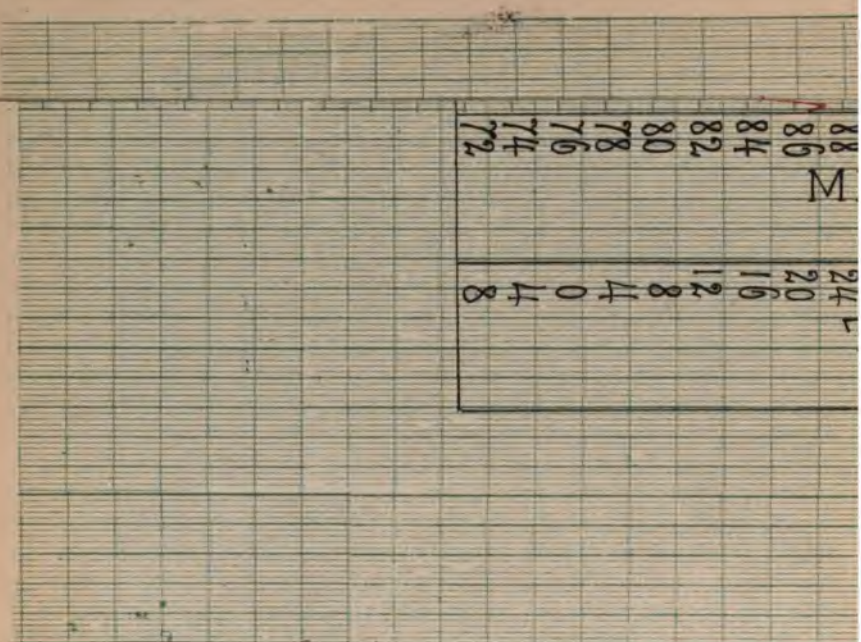
The following Estimate for the next Five Years is based on the Result of the past Twenty-Seven Years, as shown above.

1886*	97,943,800	6.70	107,910	118.9	118.9	118.9	107.910	270,872	134,000,000	1 to 1.4	1,479,697	10.50	103,731	12.22	18.35	21.8	565.1	4,011	7.97
1887	97,789,700	6.70	107,910	118.9	118.9	118.9	107.910	270,872	134,000,000	1 to 1.4	1,479,697	10.50	103,731	12.22	18.35	21.8	565.1	4,011	7.97
1888	104,672,500	6.70	107,910	118.9	118.9	118.9	107.910	270,872	134,000,000	1 to 1.4	1,479,697	10.50	103,731	12.22	18.35	21.8	565.1	4,011	7.97
1889	111,893,500	6.70	107,910	118.9	118.9	118.9	107.910	270,872	134,000,000	1 to 1.4	1,479,697	10.50	103,731	12.22	18.35	21.8	565.1	4,011	7.97
1890	119,548,500	6.70	107,910	118.9	118.9	118.9	107.910	270,872	134,000,000	1 to 1.4	1,479,697	10.50	103,731	12.22	18.35	21.8	565.1	4,011	7.97
1891	127,701,400	6.70	107,910	118.9	118.9	118.9	107.910	270,872	134,000,000	1 to 1.4	1,479,697	10.50	103,731	12.22	18.35	21.8	565.1	4,011	7.97

\* Estimated upon the increase from 1858 to 1878. † Estimated upon the increase from 1880 to 1885. ‡ Estimated upon the increase from April 1st to January 1st. The items are for nine months only. § Decrease.



NOT  
CHISEL  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100



## RAIN FALL FOR THE YEAR 1886.

FROM DATA FURNISHED BY OFFICER OF SIGNAL SERVICE

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
.13	.*	.01	.05		.*		.03			.04	.*
.45	.03	.*						.*			
.18	.02			.03			.02				.07
.13				.08	.10		.10			.*	
.*	.*										
		.02			.*						
.18	.*		.*				.*			.*	
.06	.*	.*		.52		.21	.11	1.07		.49	.*
.03	.*		.*	.*				.51		.05	.*
	.53	.*	.21	.07		.*		.07		.*	.*
.01	.08	.29	.03	.03			.01	.21			.33
.*		.*	.07	.20	.19	.61	.26	.28	.*	.*	.19
	.18		.01	.01				.25	.59		.18
.60	.*		.17		.18					.*	
.16			.08		.40		1.00	.74		.05	
.46		.*						.01		.71	.14
.08	.*	.*		.01				.98		.09	.02
.63	.03			.01		.52		1.10		.*	.02
.01		.46				.04			.18	.*	
.*	.*	.17	.*				.07	.*		.*	.27
				.03	.01		.18	.*		.16	
				.01	.01				.17		
	.34				.02				.06	.*	.*
	.08		.15		.03			.49	.03	.*	.17
.05			.10			.*		.01	.*		.09
.32	.*							.61	.05	.*	
	.22	.07				.14	.50		.34	.03	
.01		.04	.42				1.10			.01	.05
.07		.24	.*			.*				.03	
.02		.49				.01					.23
ds. 3.56	1.51	1.79	1.29	1.00	0.94	1.53	3.33	6.93	1.42	1.66	1.76

Total rain fall, 26.77 inches.

NOTE.--\*Too small for measurement.

## DEPARTMENT OF PUBLIC WORKS.

## MEAN TEMPERATURE FOR 1886.

FROM DATA FURNISHED BY OFFICER OF SIGNAL SERVICE.

DAYS OF THE MONTH.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	41.2	11.5	21.3	31.1	46.4	69.2	70.3	71.2	62.5	41.5	58.4	14.1
2	43.9	-3.3	21.2	27.7	53.6	61.5	70.9	65.7	68.5	48.7	58.8	8.3
3	44.5	5.0	24.0	30.6	61.6	56.8	74.8	69.1	72.5	57.0	49.3	13.3
4	32.5	8.2	31.3	31.2	59.1	65.0	77.9	69.3	75.8	54.2	48.1	22.0
5	24.7	13.0	33.4	33.8	50.8	60.6	81.2	69.7	76.7	58.1	41.8	12.4
6	23.2	27.3	34.2	35.5	56.1	63.9	84.2	68.6	77.5	50.8	33.2	29.9
7	23.2	.....	34.8	38.2	45.7	55.8	69.5	73.6	78.5	64.1	30.2	32.7
8	19.8	41.0	30.5	42.5	56.7	59.6	67.7	74.7	69.9	66.5	35.9	35.9
9	9.7	48.5	28.1	54.8	55.3	69.6	68.7	79.5	73.6	69.9	44.0	42.0
10	-4.8	48.0	31.6	46.8	52.5	56.0	68.7	76.0	68.3	67.9	45.5	44.2
11	-1.9	45.9	37.5	44.7	60.9	65.5	69.4	73.7	64.5	69.0	39.4	51.2
12	5.9	39.7	36.7	44.7	58.8	75.6	70.4	75.9	57.6	70.5	35.8	48.0
13	22.7	41.2	32.8	46.5	59.7	77.0	71.9	76.8	62.9	70.6	34.8	34.8
14	30.4	30.3	37.1	59.7	55.5	78.1	65.2	68.3	61.8	59.1	40.4	30.8
15	36.1	20.6	35.0	61.8	46.4	78.9	67.9	74.1	66.0	51.2	39.4	11.6
16	22.5	17.1	44.3	61.6	45.8	67.8	63.9	74.9	67.3	49.3	43.7	12.1
17	13.0	37.1	43.5	61.2	55.4	66.1	59.8	68.9	56.9	56.3	41.9	29.4
18	24.1	41.2	45.7	53.6	59.5	62.5	62.0	69.1	61.6	55.2	25.5	28.
19	13.8	23.1	61.0	51.0	57.7	65.0	66.5	72.4	58.4	66.2	34.9	17.8
20	22.6	22.9	39.5	56.0	51.6	69.8	65.5	73.2	57.6	61.7	39.7	24.8
21	19.3	30.1	34.8	63.0	69.0	70.1	71.0	79.7	61.5	52.7	41.7	27.3
22	3.6	36.1	35.1	68.0	73.4	70.7	66.2	74.1	67.8	61.3	51.0	25.9
23	-1.6	35.0	34.7	69.6	62.6	61.7	70.6	69.4	73.3	59.8	38.9	30.2
24	21.7	44.1	50.7	46.5	56.1	61.1	75.9	70.3	75.0	57.2	23.2	35.4
25	28.9	22.0	45.0	45.1	51.0	63.7	77.1	72.3	72.6	45.3	22.6	26.6
26	32.2	19.5	40.4	57.9	61.7	65.9	71.7	75.3	67.0	42.3	24.9	17.9
27	32.4	26.6	31.4	56.0	57.8	63.8	73.8	80.0	68.7	42.7	33.2	-2.7
28	29.6	22.8	35.4	54.6	64.1	65.1	82.6	78.9	56.8	45.6	31.9	8.7
29	18.3	.....	38.9	51.5	67.4	67.1	73.3	73.1	53.4	48.3	27.5	17.5
30	18.4	.....	34.7	47.3	56.6	67.2	71.5	65.3	48.1	52.1	29.3	22.7
31	12.7	.....	34.9	.....	58.1	.....	74.8	60.0	.....	55.5	.....	22.4
Averages	21.4	27.9	36.1	49.1	57.0	66.0	71.4	72.4	66.1	56.6	38.2	25.0



THE ASTOR LIBRARY  
NEW YORK

TOWER PL.



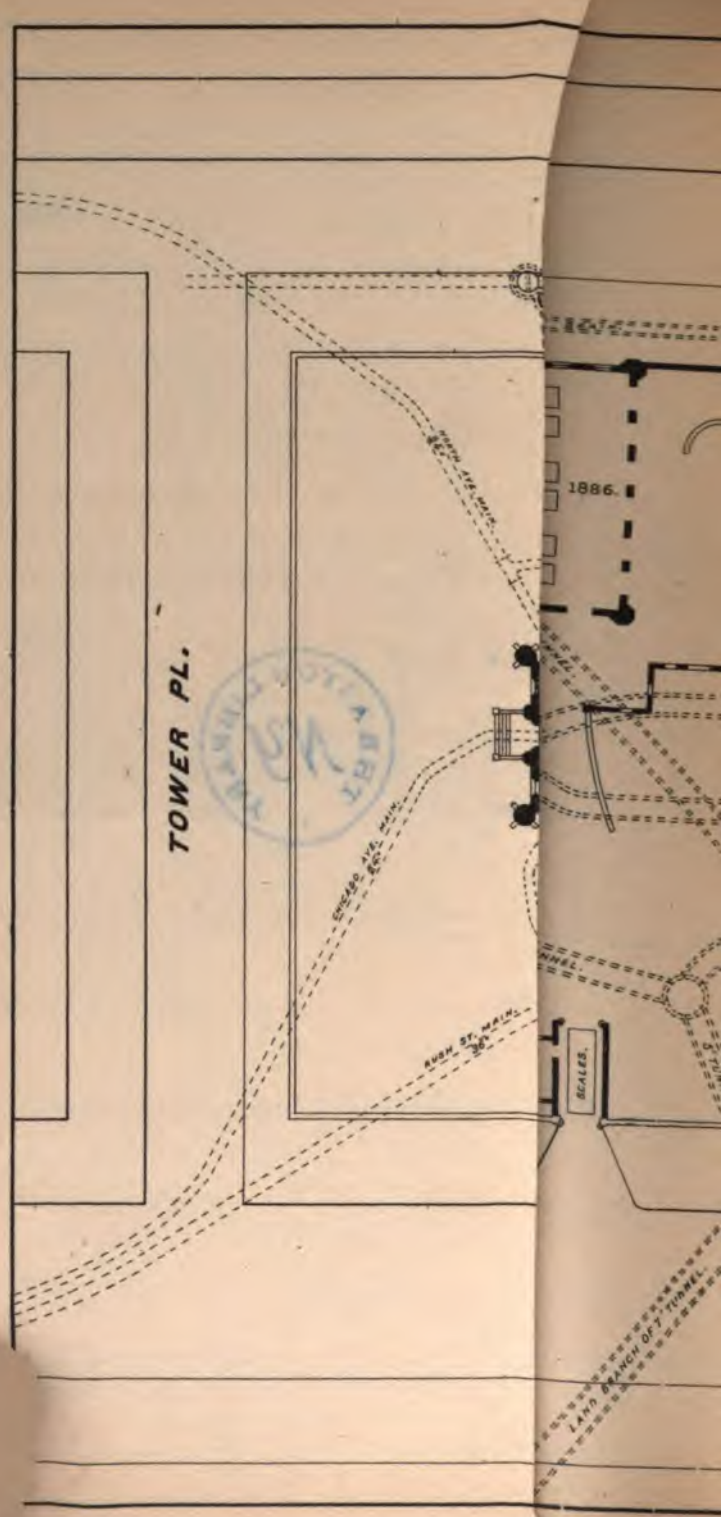
CHAS. J. VAN NUNN

RUSH ST. MAIN

1886.

SCALES.

LAND BRANCH OF TUNNEL



## NORTH PUMPING WORKS.

CHICAGO, Jan. 17, 1887.

S. G. ARTINGSTALL,

*City Engineer.*

SIR:—I herewith submit the Thirty-fourth Annual Report of the operations of these Works, the same being for the year ending December 31st, 1886.

The total quantity of water pumped, with an allowance of  $5\frac{3}{4}$  per cent. for loss of action in pumps, is 16,238,854,625 gallons, being  $15\frac{16}{100}$  per cent. increase of the quantity pumped during the year 1885. The daily average was nearly  $44\frac{3}{10}$  million gallons—a little over  $6\frac{1}{10}$  millions less than in 1885.

The greatest daily average pumped for a single month was in July—a trifle over 49 million gallons. The least daily average for a like period was during May—nearly 39 million gallons.

The largest quantity pumped for a single day was on the 14th of June—57,196,480 gallons. The least quantity pumped for a single day was on the 9th of May—25,570,130 gallons.

The following tabulated record exhibits in detail the operations of these Works for the year 1886:

## OPERATIONS OF BOILERS AND ENGINES.

MONTHS. 1891.	No. of Days.	No. of Hours run per Month.		Average No. of Revolutions per Hour.	Total No. of Gallons of Water Pumped per Month, less 5% Action.	Average No. of Gallons of Water pumped per Day, less 5% per cent. for loss of Action.	Pounds of Coal consumed per Month.	Average No. of Pounds of Coal consumed per day for Pumping.	Pounds of Coal consumed per Month for charging Boilers.	Total Pounds of Coal consumed per Month.	Average head against Pumps in feet.	DUTY.
		H.	M.									
January.....	31	744:00	24:00	957,935	1,344,346,935	43,366,032	2,472,040	79,743	5,200	2,477,240	109.7	49,754,000
February.....	28	672:00	24:00	877,340	1,249,745,645	44,433,773	2,302,520	82,233	2,900	2,305,420	110.9	50,201,300
March.....	31	744:00	24:00	899,956	1,326,064,370	42,776,270	2,412,980	77,838	5,800	2,418,780	112.3	51,490,300
April.....	30	730:00	24:00	1,014,157	1,295,009,455	43,186,981	2,429,860	80,995	5,000	2,435,460	108.0	48,026,000
May.....	31	744:00	24:00	959,737	1,074,402,595	38,948,471	2,224,110	71,745	5,300	2,229,410	110.4	47,991,800
June.....	30	720:00	24:00	988,347	1,446,240,195	48,208,006	2,650,490	88,349	2,700	2,653,190	109.6	49,875,800
July.....	31	744:00	24:00	1,065,543	1,519,236,835	49,007,640	2,724,550	87,888	5,500	2,730,050	109.7	51,015,000
August.....	31	744:00	24:00	1,030,418	1,477,708,050	47,670,904	2,639,110	85,132	5,700	2,644,810	107.8	50,343,300
September.....	30	720:00	24:00	950,737	1,385,820,055	46,194,001	2,452,370	81,746	2,900	2,455,270	108.1	51,146,200
October.....	31	744:00	24:00	927,702	1,305,692,850	44,054,608	2,422,920	78,158	3,000	2,425,920	107.6	50,581,000
November.....	30	720:00	24:00	796,643	1,202,828,595	40,094,286	2,110,910	70,364	5,500	2,116,410	108.4	51,514,400
December.....	31	744:00	24:00	1,010,329	1,418,068,045	45,744,162	2,586,570	83,437	2,800	2,589,370	108.1	49,427,000
Totals.....	365	8,700:00	.....	11,478,844	16,288,854,625	.....	29,428,430	.....	52,900	29,481,330	.....	.....
General Average per Month.....	.....	730:00	.....	956,570	1,353,237,885	.....	2,452,370	.....	4,409	2,456,777	.....	.....
General Average per Day.....	.....	24:00	.....	31,448	44,400,012	.....	.....	80,626	.....	80,770	108.8	50,070,700

NOTE.—Coal for heating building and pumping out wells included in above amount.

The annexed table sets forth the total quantity of water pumped, and the time run by the several engines, respectively:

Engines Designated as	No. of Hours Run.		Total Revolutions.	Total Gallons of Water Pumped, less 5% per cent. for loss of Action.
	H.	M.		
1853	577	35	359,426	176,118,740
1857	3,786	25	2,290,164	1,763,426,280
1867	6,939	05	4,264,375	4,051,156,250
1872	8,478	50	4,564,879	10,248,153,355
Totals.....	19,781	55	11,478,844	16,238,854,625

The south or "72" engines, with the exception of a stoppage of ten days, from April 29th to May 8th, for the purpose of overhauling and cleaning, have been in continuous operation.

### FUEL.

Coal has been received and used as follows:

#### LACKWANNA COAL.

	TONS. POUNDS.		TONS. POUNDS.	
On hand January 1, 1886			883	1,340
Received of large egg coal.....			14,638	220
Used for pumping, heating building, etc.....	14,715	1,030		
Used for Work Shop....	235	1,130		
Used for new engines and tunnel.....	4	1,600		
On hand January 1, 1887	565	1,800		
Total .....	15,521	1,560	15,521	1,560

## LAUREL HILL.

	TONS.	POUNDS.	TONS.	POUNDS.
On hand January 1, 1886			2	880
Received . . . . .			214	700
Used for changing boilers	26	900		
Used for Work Shop, pipe extension, etc . . . . .	187	410		
On hand January 1, 1887	3	270		
Total . . . . .	216	1,580	216	1,580

## EXPENSES DUE TO PUMPING.

Salaries of engineers . . . . .	\$ 7,300 00
Labor, firemen, etc . . . . .	18,577 22
14,714 $\frac{430}{2000}$ tons of Lackwanna coal at an average cost of \$6.03 $\frac{7}{10}$ per ton	88,835 76
206 $\frac{1}{2}$ gallons of lard oil . . . . .	109 23
852 $\frac{1}{2}$ gallons of cylinder oil . . . . .	773 19
724 pounds of solidified oil . . . . .	182 09
128 pounds of tallow . . . . .	9 79
297 pounds of packing . . . . .	90 90
1,890 pounds of waste . . . . .	174 87
Small stores . . . . .	106 18
Gas for lighting Works . . . . .	859 58
Repairs of fire room tools . . . . .	50 93
Repairs of engines . . . . .	1,143 52
Repairs of boilers . . . . .	829 14
Total . . . . .	\$ 119,042 40

Cost of delivering water per million gallons.	\$ 7 33 $\frac{7}{100}$
Cost of delivering water per million gallons one foot high .....	06 $\frac{74}{100}$
Cost of repairs of engines and boilers per million gallons .....	12 $\frac{71}{100}$

Distributed as follows:

To engines .....	07 $\frac{80}{100}$
To boilers .....	05 $\frac{11}{100}$

The following is the cost of delivering water per million gallons during the past ten years, and cost of coal:

	Average Cost of Coal per Ton.	Cost of Pumping.
1877 .....	\$5 38	\$7 09
1878 (Estimated Screenings used)	4 39	6 24
1879 .....	4 14	5 65
1880 .....	4 83	5 68
1881 .....	6 18	7 12
1882 .....	6 16	7 34
1883 .....	5 78	7 27
1884 .....	5 91	7 71
1885 .....	5 58	7 17
1886 .....	6 04	7 33
Average for ten years .....	<u>\$5 44</u>	<u>\$6 86</u>

The quantity of water pumped, head, cost of coal and repairs, cost of coal per ton and total cost per million, for the past ten years, is shown in the following table:

YEAR.	Galls Pumped	Head.	Cost of Repairs of Engines and Boilers.	Cost of Repairs per Million Gallons.	Cost of Coal per Ton.	Total Cost of Pumping one Million Gallons.	Cost of Pumping one Million Gallons 1 ft. high.
1877.....	11,958,977,636	110.	\$2,734 99	\$0 22 <sup>87</sup> / <sub>100</sub>	\$5 38	\$7 09 <sup>64</sup> / <sub>100</sub>	\$0 06 <sup>45</sup> / <sub>100</sub>
1878.....	11,145,370,232	106.	1,801 42	0 16 <sup>16</sup> / <sub>100</sub>	4 39	6 24 <sup>34</sup> / <sub>100</sub>	0 05 <sup>88</sup> / <sub>100</sub>
1879.....	11,153,103,981	102.08	714 04	0 09 <sup>47</sup> / <sub>100</sub>	4 14	5 65 <sup>55</sup> / <sub>100</sub>	0 05 <sup>54</sup> / <sub>100</sub>
1880.....	12,354,008,905	104.07	1,208 67	0 09 <sup>78</sup> / <sub>100</sub>	4 83	5 67 <sup>52</sup> / <sub>100</sub>	0 05 <sup>42</sup> / <sub>100</sub>
1881.....	13,758,940,879	105.78	2,200 07	0 16	6 18	7 12 <sup>29</sup> / <sub>100</sub>	0 06 <sup>73</sup> / <sub>100</sub>
1882.....	14,150,193,884	105.38	696 68	0 04 <sup>92</sup> / <sub>100</sub>	6 16	7 34 <sup>15</sup> / <sub>100</sub>	0 06 <sup>96</sup> / <sub>100</sub>
1883.....	16,365,263,090	107.4	1,388 71	0 09 <sup>4</sup> / <sub>100</sub>	5 78	7 26 <sup>86</sup> / <sub>100</sub>	0 06 <sup>76</sup> / <sub>100</sub>
1884.....	14,505,650,785	107.2	4,002 81	0 26 <sup>73</sup> / <sub>100</sub>	5 91	7 71 <sup>7</sup> / <sub>100</sub>	0 07 <sup>19</sup> / <sub>100</sub>
1885.....	14,004,733,925	113.0	1,206 78	0 09 <sup>7</sup> / <sub>100</sub>	5 58	7 16 <sup>95</sup> / <sub>100</sub>	0 06 <sup>34</sup> / <sub>100</sub>
1886.....	16,238,854,625	108.8	2,063 56	0 12 <sup>71</sup> / <sub>100</sub>	6 04	7 33 <sup>7</sup> / <sub>100</sub>	0 06 <sup>74</sup> / <sub>100</sub>

TABLE SHOWING QUANTITY OF WATER PUMPED AT THE 'NORTH PUMPING WORKS' EACH MONTH DURING PAST TEN YEARS.

Month.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
January ....	719,462,385	898,314,968	1,138,741,094	987,419,633	1,160,313,094	1,000,553,493	1,459,650,870	1,597,746,065	1,183,792,300	1,344,346,665
February ..	774,594,448	815,598,987	983,647,626	906,653,592	1,071,244,080	984,359,947	1,387,274,940	1,490,054,060	1,172,952,080	1,249,745,045
March .....	1,088,521,780	906,047,019	1,083,257,148	978,890,272	1,084,122,691	1,126,205,741	1,390,238,480	1,461,888,615	1,179,418,925	1,386,064,370
April .....	1,109,098,815	586,000,942	677,241,146	974,805,639	1,005,401,896	1,010,929,508	1,206,018,090	1,243,150,060	1,082,368,455	1,206,000,455
May .....	1,154,372,813	639,630,064	781,082,231	1,060,443,297	962,315,627	1,148,043,257	1,226,970,205	1,352,183,450	1,044,409,125	1,207,402,595
June .....	1,110,876,865	724,020,984	755,459,026	1,088,446,318	1,057,288,284	1,231,069,204	1,279,000,075	1,334,334,220	1,095,438,695	1,446,240,195
July .....	1,115,239,814	1,114,216,563	1,046,815,119	1,127,556,346	1,272,257,588	1,303,469,102	1,414,407,080	1,400,897,800	1,297,702,105	1,519,296,895
August. ...	1,066,176,419	1,122,492,614	1,069,289,439	1,069,773,864	1,339,158,996	1,314,724,931	1,435,126,030	1,291,432,525	1,222,961,105	1,477,798,050
September..	1,012,028,068	1,050,831,650	989,337,876	1,080,682,710	1,236,847,152	1,300,657,799	1,397,348,170	1,228,234,905	1,170,082,285	1,385,820,055
October ....	968,713,776	1,064,588,733	1,047,124,358	1,038,422,722	1,344,345,991	2,230,715,910	1,294,425,570	1,147,362,310	1,208,566,170	1,365,692,850
November..	909,774,581	1,145,355,798	786,223,037	982,329,141	1,227,129,714	1,155,586,563	1,530,954,540	1,042,210,085	1,101,196,590	1,202,828,505
December..	899,497,884	1,078,271,910	794,884,281	1,065,582,491	998,525,362	1,298,878,346	1,432,341,210	966,175,820	1,335,815,400	1,418,069,045
Totals ....	11,958,977,646	11,145,370,232	11,153,102,981	12,354,008,905	13,758,940,879	14,150,193,884	16,365,293,090	15,405,650,755	14,094,733,025	16,298,851,025

The following is a statement of the work done at the Machine Shops on the premises:

Hydrants, stop-valves, etc., have been manufactured during the year as follows:

#### NEW HYDRANTS.

Four inch (double nozzle) . . . . .	10
Two and a half inch (double nozzle) . . . . .	238
“ “ “ “ (single nozzle) . . . . .	110
Total manufactured . . . . .	358
Of this number there have been used . . . . .	333
Leaving on hand January 1st, 1887, of the two and a half inch double nozzle size . . . . .	25

#### NEW STOP-VALVES.

Four inch . . . . .	49
Six inch . . . . .	169
Eight inch . . . . .	66
Twelve inch . . . . .	21
Sixteen inch . . . . .	3
Twenty-four inch . . . . .	5
Total manufactured . . . . .	313
Of this number there has been used . . . . .	278
Leaving on hand January 1st, 1887 . . . . .	35

Of the following sizes, viz:

Four inch.....	6
Six inch.....	16
Eight inch.....	11
Twenty-four inch.....	2
Total.....	<u>35</u>

The above list includes the hydrants and stop-valves reported on hand January 1st, 1886, which were carried over as stock on hand.

In addition to the foregoing work, a number of hydrants and stop-valves have been repaired, a large number of new water meters tested and old ones repaired and painted, and the usual amount of repairing has been done for the various departments of the city.

The total expenditure for  
labor and material on  
account of shop, including  
value of stock on  
hand January 1, 1887, is \$32,052 07

Charged to the following  
accounts, viz:

Water Department (Pumping)..... \$2,694 88  
Carried forward..... \$2,694 88

Brought forward.....	\$2,694 88	
Water Department (other than pumping).....	1,753 33	
New hydrants and stop- valves.....	16,414 77	
Pipe extension.....	270 11	
Tappers' tools.....	161 42	
Meter Department.....	1,555 44	
Street Department.....	564 64	
North Branch Pumping Works.....	13 57	
City Hall Building.....	52 00	
Engineer's office.....	12 76	
Sewer Department.....	5 13	
Street lamps.....	4 90	
Fire Department (Half of coal used in boiler, and half of expenses firing boiler).....	936 67	
Expenses running shop (coal, gas, etc.).....	1,979 12	
Stock on hand January 1, 1887 .....	5,634 77	
Total.....	\$32,053 51	
Erie Street Viaduct (Less "I" beams used).....	1 44	
Total .....	<u>\$32,052 07</u>	<u>\$32,052 07</u>

The value of work done in the shop, estimating the same at less than current prices for like articles is.....		\$37,526 51
Add coal etc., Fire Depart- ment.....		936 67
Deduct as shown.....	\$32,052 07	
Deduct 10 per cent. for in- terest and depreciation of tools, etc., costing \$10,550 63.....	1,055 06	
Leaving nominal net earn- ings of shop.....	5,356 05	
Total .....	<u>\$38,463 18</u>	<u>\$38,463 18</u>
Cost of tools previously reported.....	\$10,337 47	
Add by repairs past year.....	213 16	
Present value of tools.....	\$10,550 63	
Value of stop-valves and hydrants, before noted as on hand January 1. 1887, to- gether with the raw material in the shop, is.....	5,634 77	
Total value of stock and tools.....	<u>\$16,185 40</u>	

In the shop a new lathe and a new drilling machine is wanted in addition to the other machine tools. After getting the new machines each of the old lathes want the beds and slides planed and entirely repaired and refitted. I would also state that there is not enough room in the shop. Considerable space is now required and we are becoming more and more cramped every year for room.

In February last placed a new air pump in the basement to take the place of the two old ones, and since then it has been in constant operation, giving good satisfaction.

The small engine has long passed the period of its usefulness. It was the first engine erected with a capacity of eight million at a head much lower than we now carry, and in connection with the other engines is of but little if any assistance. The space occupied by it is too valuable and it should be removed to make room for larger and more serviceable machinery. Last year the total running time was but 577 hours, running only at times when one or more engines were stopped at the West Side Works.

The north boiler in the north fire room was built in 1867 and is worn out, so much so that a new one, either of the same size, or new ones of a smaller size should be immediately built to take its place.

The heating apparatus needs an entire overhauling and most of it renewing, as it is worn out. In the place of the smaller steam pipes in the basement there should be one pipe of a larger size substituted.

The front or flat portion of roof leaks very badly and needs repairing.

The only accident occurred in January last. Thos. McDowell, one of the oilers, got one of his arms caught in the engines, breaking it.

There has been no change made in the working force at these works. The assistant engineers, Horner, Belton and Fuller, and also the other employes are still faithful and zealous in the discharge of their different duties.

Respectfully submitted,

FRANK TRAUTMANN.

*Chief Engineer.*

## WEST PUMPING WORKS.

CHICAGO, January 29, 1887.

SAMUEL G. ARTINGSTALL, Esq.,

*City Engineer.*

SIR:—The Eleventh Annual Report of the operation of these Works being for the year ending December 31, 1886, is herewith submitted.

## ENGINES.

The four (4) engines located at these Works have been running almost continually during the year except at intervals during the night, at times when the weather is not unusually warm or cold. The two (2) new, or 1884 engines, were shut down for two weeks alternately in April to be overhauled and also on December 18th, owing to a bad fracture in the main steam pipe, we were obliged to stop both engines for two days until it could be repaired. Taken altogether the engines have run very satisfactory during the year.



CANAL.



22

240

100

100

ASHLAND

## BOILERS.

The new boilers are in good condition. I have overhauled some of the tubes in the old boilers in the past year, and it will be necessary, as soon as opportunity offers, to do the same with the remainder of the tubes. The constant wear for the past eleven years on the tubes has made this a necessity. In all other respects the boilers are in good condition.

The number of gallons of water pumped, head against pumps, coal burned during the year, and duty is shown in the following table:

## DEPARTMENT OF PUBLIC WORKS.

TABLE NO. 1.  
OPERATIONS OF ENGINES AND BOILERS AT WEST PUMPING WORKS IN 1886.

MONTHS. 1886.	No. of Days.		No. of Hours run per Month.		Average No. of Hours run per Day.		Total Revolutions per Month.		Average No. of Revolutions per Day.		Total No. of Gallons of Water Pumped per Month, less 5% for loss of Action.		Average No. of Gallons of Water Pumped per Day, less 5% for loss of Action.		Pounds of Coal consumed per Month, less 5% for Pumping.		Average No. of Pounds of Coal consumed per day for Pumping.		Pounds of Coal consumed per Month.		Total Pounds of Coal consumed per Month.		DUTY.
	H.	M.	H.	M.	H.	M.																	
January.....	31	744:00	24:00	1,630,190	54,522	1,740,996,200	56,161,160	2,701,000	87,129	5,800	2,706,800	101.5	54,900,000										
February.....	28	672:00	24:00	1,509,252	53,900	1,554,614,760	55,521,957	2,125,960	75,927	7,400	2,133,360	102.6	62,800,000										
March.....	31	744:00	24:00	1,586,574	51,180	1,631,985,000	52,644,700	2,330,200	75,168	6,000	2,336,200	102.9	60,400,000										
April.....	30	720:00	24:00	1,360,693	45,355	1,493,089,720	46,435,657	2,033,640	68,453	10,800	2,064,240	93.2	53,000,000										
May.....	31	744:00	24:00	1,569,173	50,619	1,614,370,400	52,076,490	2,617,800	84,445	9,600	2,627,400	103.2	53,400,000										
June.....	30	720:00	24:00	1,569,597	52,319	1,615,050,600	53,835,020	2,503,600	83,435	9,400	2,513,000	101.5	54,900,000										
July.....	31	744:00	24:00	1,621,041	52,292	1,669,581,840	53,837,480	2,571,700	82,900	8,000	2,579,700	100	54,400,000										
August.....	31	744:00	24:00	1,635,581	52,761	1,684,536,560	54,340,000	2,725,300	81,494	23,000	2,549,900	99.2	55,400,000										
September.....	30	720:00	24:00	1,597,981	53,266	1,646,232,280	54,874,409	2,462,000	82,066	5,400	2,467,400	100.4	56,300,000										
October.....	31	744:00	24:00	1,607,669	51,860	1,658,388,920	53,406,400	2,502,400	80,703	6,600	2,509,000	101.4	56,500,000										
November.....	30	720:00	24:00	1,515,151	50,505	1,559,988,160	51,999,945	2,448,800	81,626	7,000	2,455,800	104	55,500,000										
December.....	31	744:00	24:00	1,639,071	52,873	1,685,573,820	54,373,350	2,613,000	84,300	18,400	2,631,400	100.8	54,600,000										
Totals.....	365	8,760:00	.....	18,901,949	.....	19,454,388,260	.....	29,456,400	.....	117,800	29,574,200	.....	.....										
General Average per Month.....	.....	730:00	.....	1,575,162	.....	1,621,199,022	.....	2,454,700	.....	9,817	.....	100.9	56,000,000										
General Average per Day.....	.....	24:00	.....	51,788	.....	53,301,350	.....	80,642	.....	323	.....	.....	.....										

The following table shows the total quantity of water pumped and the hours run by the four (4) engines respectively:

Engines Designated as	Hours Run.	Revolutions Made.	Gallons of Water Pumped, less 5% per cent. for loss of action.
No. 25.....	H. M. 7,771:50	4,845,946	4,845,946,000
" 28.....	7,755:20	4,848,682	4,848,682,000
" 50.....	7,888:55	4,603,746	4,879,970,760
" 51.....	7,839:35	4,603,575	4,879,789,500
Total .....	31,255:40	18,901,949	19,454,388,260

There are only about six (6), or seven (7) million gallons difference in the total gallons pumped between the years 1885 and 1886.

The following table shows the cost of repairing of Engines and Boilers, cost of repairs per million gallons, average cost of coal per ton, total cost per million gallons pumped and cost, one foot high, up to December 31st, 1886.

TABLE NO. 2

YEAR.	Galls Pumped	Head against Pump.	Cost of Repairs of Engines and Boilers.	Cost of Repairs per Million Gallons.	Average Cost of coal per ton	Total cost per Million.	Cost per Million One Foot High.
		FEET.					
1877.....	7,088,127,000	109.	\$1,123 61	\$0 15 <sup>55</sup> / <sub>100</sub>	\$5 22	\$6 66	\$0 06 <sup>11</sup> / <sub>100</sub>
1878.....	8,418,918,000	106.	583 66	06 <sup>23</sup> / <sub>100</sub>	3 67	5 45	05 <sup>14</sup> / <sub>100</sub>
1879.....	9,404,588,000	101.	1,879 70	23 <sup>10</sup> / <sub>100</sub>	2 62	5 02	04 <sup>20</sup> / <sub>100</sub>
1880.....	8,648,673,000	98.3	366 96	04 <sup>24</sup> / <sub>100</sub>	3 60	5 15	05 <sup>24</sup> / <sub>100</sub>
1881.....	9,572,845,000	90.	1,100 18	11 <sup>30</sup> / <sub>100</sub>	3 60	5 25	05 <sup>28</sup> / <sub>100</sub>
1882.....	10,000,750,000	83.2	854 90	08 <sup>44</sup> / <sub>100</sub>	3 90	5 00	05 <sup>28</sup> / <sub>100</sub>
1883.....	10,376,678,000	85.1	2,345 63	22 <sup>00</sup> / <sub>100</sub>	4 10	5 09	05 <sup>29</sup> / <sub>100</sub>
1884.....	13,880,933,680	90.5	1,285 53	09 <sup>24</sup> / <sub>100</sub>	2 96	4 96	05 <sup>42</sup> / <sub>100</sub>
1885.....	19,447,521,980	105.	2,002 11	10 <sup>20</sup> / <sub>100</sub>	3 35	4 95	04 <sup>71</sup> / <sub>100</sub>
1886.....	19,454,388,260	100.9	2,634 62	13 <sup>00</sup> / <sub>100</sub>	3 18	4 80	04 <sup>75</sup> / <sub>100</sub>

TABLE NO. 3.

TABLE SHOWING QUANTITY OF WATER PUMPED BY "WEST PUMPING WORKS" COMBINED, EACH MONTH DURING PAST TEN YEARS.

MONTHS.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
January.....	893,507,000	663,352,000	845,658,000	579,725,000	885,170,000	765,040,000	937,631,000	955,490,000	1,764,123,600	1,740,996,200
February.....	630,355,000	585,950,000	775,107,000	626,542,000	800,886,000	740,278,000	840,548,000	880,546,000	1,658,890,700	1,554,614,700
March.....	454,972,000	600,264,000	846,632,000	696,280,000	896,546,000	806,646,000	905,736,000	954,418,000	1,748,143,220	1,631,985,000
April.....	422,888,000	793,902,000	823,126,000	683,913,000	797,300,000	821,658,000	881,055,000	930,306,000	1,498,356,720	1,393,069,720
May.....	473,630,000	781,498,000	858,911,000	720,662,000	845,572,000	852,296,000	913,065,000	952,407,000	1,632,207,920	1,614,370,400
June.....	485,779,000	800,213,000	820,662,000	727,172,000	812,954,000	826,842,000	892,912,000	929,324,000	1,506,137,620	1,615,060,600
July.....	618,043,000	789,700,000	738,578,000	794,964,000	876,338,000	858,186,000	929,324,000	1,061,390,500	1,729,898,200	1,660,581,840
August.....	696,296,000	784,651,000	735,461,000	828,475,000	892,153,000	894,874,000	941,673,000	1,482,553,340	1,675,467,160	1,684,536,560
September...	635,651,000	721,236,000	675,686,000	717,349,000	843,576,000	822,256,000	939,998,000	1,474,673,420	1,566,727,920	1,646,232,280
October.....	624,694,000	687,297,000	688,678,000	734,456,000	579,467,000	896,076,000	931,094,000	1,381,246,760	1,592,069,440	1,658,388,920
November...	599,707,000	486,168,000	764,250,000	722,878,000	574,679,000	859,408,000	519,437,000	1,316,406,000	1,477,747,780	1,556,988,100
December....	612,665,000	694,717,000	831,550,000	816,317,000	798,199,000	913,190,000	772,400,000	1,024,570,660	1,480,781,700	1,685,573,820
Totals.....	7,088,127,000	8,418,918,000	9,404,588,000	8,648,673,000	9,572,845,000	10,770,000	10,376,678,000	13,880,933,680	19,447,521,980	19,454,388,260

Coal has been received and used as follows in 1886:

	TONS.	LBS.
On hand January 1, 1886, Pittsburgh lump.....	156	1,300
Pittsburgh nut.....	10	
Pittsburgh screen- ings.....	116	1,200
Received from W. P. Rend & Co.		
Pittsburgh lump....	4,261	640
“ nut.....	7,383	1,200
“ screenings	1,976	510
“ pea.....	415	510
Hocking lump.....	656	950
Miscellaneous coals from other firms..	78	940

### COAL USED.

	TONS.	LBS.		
For pumping, heat- ing, etc .....	14,728	400		
For changing boilers	58	1,800		
On hand January 1, 1887.....	267	1,050		
Total .....	15,054	1,250	15,054	1,250

## EXPENSES DUE TO PUMPING 1886.

Salaries.....	\$36,108 44
Coal, $14,787\frac{200}{2000}$ tons.....	46,996 79
Cylinder oil, $1,320\frac{1}{2}$ gallons.....	1,188 05
Lard oil, $150\frac{4}{5}$ gallons.....	91 30
Lubricating compound, $5,551\frac{1}{2}$ lbs.....	1,391 86
Cotton waste, 2,705 lbs.....	250 22
Gas, 1,316,800 cubic feet.....	1,975 20
Hardware.....	119 39
Rubber and packing.....	245 96
Repairs of boilers.....	763 10
Repairs of engines and pumps.....	1,871 52
Fire brick and clay.....	195 50
Fire tile.....	209 50
Pump valves, rubber.....	1,268 03
Castings.....	150 45
Lumber.....	34 00
Small stores.....	336 63
One Knowles' pump, second hand.....	175 00
Total.....	<u>\$93,370 94</u>
Bills for construction.....	631 66
Total expense.....	<u><u>\$94,002 60</u></u>

## Amount of gallons of water pumped

during the year.....	19,454,388,260
Cost of pumping.....	\$93,370 94
Cost to pump one million gallons....	4 80

Average head against pumps during year.....	100.9 ft
Cost of delivering water per million gallons one foot high.....	04 $\frac{75}{100}$
Cost of repairs of engines and boilers per million gallons.....	13 $\frac{60}{100}$

Distributed as follows:

To engines .....	09 $\frac{62}{100}$
To boilers .....	03 $\frac{98}{100}$

The following table shows the cost of delivering water per million gallons during the past ten years, and average cost of coal at works:

Years.	Average Cost of Coal per Ton.	Total Cost per Million Gals.
1877 .....	\$5 22	\$6 66
1878 .....	3 67	5 45
1879.....	2 62	5 02
1880.....	3 60	5 15
1881.....	3 60	5 25
1882.....	3 90	5 00
1883.....	4 10	5 09
1884 .....	2 96	4 96
1885.....	3 35	4 95
1886.....	3 18	4 80

## CONSTRUCTION.

During the year I had a new composition floor put in boiler room, which proved to be a decided improvement over the old brick floor.

Assistant engineers Stewart, Commons and Mason, and all other employees at these works, have been faithful in the discharge of their respective duties.

Respectfully submitted,

HENRY MASON,

*Chief Engineer.*

## WATER PIPE EXTENSION.

The order of the City Council requiring water pipe to be laid on all streets where it would yield a revenue of five cents per lineal foot has caused us to lay an unprecedented amount of pipe during the year, it being more than thirty-six miles. Of this amount 5,490 feet of 36-inch main has been laid from the North Pumping Works westward on Pearson street to Cass street, thence north to Chicago avenue, thence west to Larrabee street where it connects with the 24-inch main heretofore laid in Chicago avenue, and a 24-inch main laid in 1886 on Larrabee street, extending from Chicago avenue to Oak street, where it connects with the 24-inch main which passes under the canal and river at Division street.

The 24-inch main on Harrison street has been extended westward to Colifornia avenue.

A 16-inch main has been laid on Western avenue from Twenty-first street to Laughton street.

Property owners have advanced the money to lay 9,078 feet of pipe which will be refunded when the required revenue is received from the frontage.

We have taken up, or abandoned, during the year 27,372 feet of pipe, mainly four inch, which has been replaced with larger pipe.

The construction of a new bridge at Twelfth street has necessitated the removal of the 24-inch siphon pipe across the river at that place and 878 feet of 16-inch pipe on West Twelfth street, which will be replaced with a main of larger size to be laid on Taylor street, passing under the river through a tunnel now under way and nearly completed. Reference is made to this tunnel in another part of this report.

The net increase of pipe added to the system during the year is 30.87 miles, and the total amount of all sizes in use by the city December 31st, 1886, is 596.02 miles.

The number of stop-valves of all sizes now in use in our system is 4,432, and of fire hydrants 5,350.

Fire cisterns were built during the year at the following places:

- Intersection of Fifth avenue and Adams street.
- Intersection of Fifth avenue and Madison street.
- Intersection of Fifth avenue and Randolph street.
- Intersection of Monroe and La Salle street.
- Intersection of Jackson and Clark streets.
- Intersection of Ontario and Franklin streets.
- On Dearborn street north of Lake street.

Water mains heretofore laid have been lowered to a depth of five and one-half feet below the established grade on the following named streets, viz:

STREET.	FROM	TO
Ada street.....	Lake street.....	Fulton street.....
Austin avenue.....	Wood street.....	Western avenue.....
Carroll Avenue.....	Paulina street.....	Oakley avenue.....
Dearborn street.....	Twenty-seventh street.....	Thirty-third street....
Fulton street.....	Ada street.....	Ashland avenue.....
Mather street.....	Desplaines street.....	Halsted street.....
Mohawk street.....	Center street.....	Garfield avenue.....
North avenue.....	Milwaukee avenue....	Leavitt street.....
Paulina street.....	Indiana street.....	Ohio street.....
Sangamon street.....	Monroe street.....	Congress street.....
Sebor street.....	Desplaines street.....	Halsted street.....

The following tabulated statement shows in detail the work done in water pipe extension during the past year.

## NORTH DIVISION.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in inches.
Alley E. of Astor st	Schiller street, northward.....	582	4
Belden avenue....	Sheffield avenue, westward.....	226	6
Blackhawk street..	Crossing on Mohawk street.....	76	8
Burton place.....	State street, westward.....	156	6
C street.....	Dominick street and Southport ave..	294	4
Cass street.....	Pearson street and Chicago avenue..	300	36
Chicago avenue....	Cass and Roberts streets.....	4,381	36
Chicago avenue....	Roberts street, westward.....	38	24
Clark st. (W. side)..	North Water street, southward.....	192	4
Clark st. (E. side)..	North Water street, southward.....	76	4
Erie street.....	Crossing on St. Clair street.....	74	8
Eugene street.....	West crossing on Mohawk street...	36	6
Fullerton avenue..	Larrabee and Orchard streets.....	694	8
Fullerton avenue..	Fremont street and Sheffield avenue	686	8
Garfield avenue....	Bissell street and Sheffield avenue..	330	6
Garfield avenue....	Dayton and Halsted streets.....	292	6
Huron street.....	Crossing on St. Clair street.....	71	6
Huron street.....	Franklin and N. Wells streets.....	385	6
Jay street.....	Center street, northward.....	124	6
Kemper place.....	Larrabee street, westward.....	64	6
Larrabee street....	Oak street and Chicago avenue.....	1,486	24
Lewis street.....	Clybourn avenue, westward.....	286	6
Lutz place.....	Town street and North ave.....	464	4
Maple street.....	Dearborn avenue and State street...	350	8
Market street.....	280 S. of Kinzie street, southward...	106	6
Market street.....	Crossing on Chicago avenue.....	107	12
Mohawk street....	North and Clybourn avenues.....	1,990	8
Mohawk street....	North avenue and Center street.....	2,631	6
North Water street.	Crossing on N. Clark street.....	55	4
Ohio street.....	East crossing on St. Clair street....	42	8
Orchard street....	South crossing on Fullerton.....	18	6
Pearson street....	Cass street, eastward.....	809	36
Rees street.....	Halsted street, westward.....	670	6
Rees street.....	North Branch street, eastward.....	113	6
Rush street.....	Illinois street, southward.....	441	8
Rush street.....	Superior and Erie streets.....	510	8
St. Clair street....	Indiana and Superior streets.....	1,380	8
Superior street....	Market and Kingsbury streets.....	1,180	8

## NORTH DIVISION.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in inches.
Walton place.....	Rush street to Lake Shore drive ...	742	6
Water Works, N.D.	Pearson street to the tower .....	80	24
Wisconsin street...	Mohawk street, eastward.....	75	6
	Total.....	22,612	.....
	Add branch pipe for hydrants.....	50	4
	Add branch pipe for hydrants.....	394	6
	Total feet laid in North Division	23,056	.....

## SOUTH DIVISION.

STREET.	BETWEEN WHAT STREETS	Length of Pipe in ft.	Diameter of Pipe in inches.
Aldine street .....	Egan avenue, northward.....	657	6
Aldine square.....	West crossing on Vincennes avenue	45	4
Alley W. of Michi- gan avenue.....	S. Water street, northward.....	170	6
Archer avenue.....	Douglas avenue, northeastward....	412	6
Butler street.....	North crossing on Thirty-third street	25	6
Butterfield street...	South crossing on Twenty-sixth st..	44	8
Butterfield street...	South crossing on Thirty-fourth st..	41	4
Calhoun place.....	Crossing on Fifth avenue.....	88	8
Cottage Grove Av.	Twenty-second and Thirtieth street.	5,140	4
Court place.....	Crossing on Fifth avenue.....	90	8
*Dashiell street.....	Thirty-first and Thirty-second streets	641	6
Douglas avenue.....	Emerald avenue and Dashiell street.	331	6
Douglas avenue.....	Laurel street, westward.....	442	6
Eda street.....	West crossing on Indiana avenue...	31	6
Eda street.....	Crossing on Michigan avenue.....	110	6
Egan avenue.....	Forrest and Prairie avenues .....	394	8
Egan avenue.....	Vincennes avenue and Aldine street	209	12
Ellis avenue.....	Douglas and Egan avenues.....	2,699	6
Fifth avenue.....	Madison and Randolph streets.....	924	8
Fifth avenue.....	North crossing on Thirty-third st...	25	6
Forrest avenue.....	Thirty-eighth street and Egan ave..	660	6
Grand boulevard...	Thirty-seventh street, northward...	855	6
Haines street.....	Lyman street, southward.....	425	6
*Lake Park avenue	Twenty-ninth and Thirtieth streets.	750	6
La Salle street.....	Twenty-sixth & Twenty-seventh sts	465	6
La Salle street.....	Thirty-third street and Douglas ave.	1,346	6
Laurel street.....	Thirty-second street, southward....	274	8
Levee street.....	E. line of street west of Canal Pumping Works, eastward.	723	4
Lincoln street.....	Thirty-eighth street and Egan ave..	641	6
Long John street...	Douglas avenue, southward.....	321	8
Lundy street.....	326 ft. S. of Douglas ave, southward.	740	6
Mary street.....	Hickory street, southward .....	485	4
Mospratt street....	Springer avenue, southward.....	344	6
Parnell avenue.....	North crossing on Thirty-eighth st..	25	6
Paulina street.....	Thirty-seventh & Thirty-eighth sts.	664	6
Poplar avenue.....	460 feet S. of Twenty-ninth street, southward.....	357	6
Salt street.....	Archer avenue, northward.....	375	4
Selma street.....	Lyman street, southward.....	559	4
Shields avenue.....	Thirty-seventh & Thirty-eighth sts.	600	4
Springer avenue...	Laurel street and Ullman court....	1,326	6
Street W. of Canal } Pumping Works }	N. line of outlet channel, northward.....	63	4
Taylor street.....	Clark street, westward.....	858	24
Thirtieth street...	Wentworth avenue and LaSalle st..	283	6
Thirty-second st...	State and Dearborn streets.....	222	6
Thirty-second st...	Butler street and Parnell avenue....	338	6
Thirty-third court..	Ashland avenue, westward.....	243	4

\*Laid at expense of property owners, to be repaid when required revenue is received.

## SOUTH DIVISION.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in inches.
Thirty-third street.	Fifth avenue, westward.....	116	6
Thirty-third street.	Crossing on Wentworth avenue.....	67	6
Thirty-third street.	Parnell avenue and Butler street....	328	6
Thirty-fourth street.	S. Park and Vernon avenues.....	343	6
Thirty-fourth street.	Dearborn and Butterfield streets....	287	6
Thirty-fourth street.	Beers street, westward.....	300	8
Thirty-fifth court..	Tucker and Gage streets.....	331	6
Thirty-sixth street.	Michigan avenue, eastward.....	236	6
Thirty-seventh ct..	Crossing on Michigan avenue.....	110	6
Thirty-seventh ct..	West crossing on Indiana avenue....	31	6
Thirty-seventh st..	Archer avenue, eastward.....	750	8
Thirty-eighth street.	Butler and Wallace streets.....	660	6
Thirty-eighth street.	Crossing on Michigan avenue.....	110	6
Thirty-eighth street.	Vincennes avenue, eastward.....	200	6
Thirty-eighth street.	Honore and Lincoln streets.....	322	6
Thirty-eighth street.	East crossing on Wentworth ave....	48	6
Thirty-eighth street.	East crossing on Indiana avenue....	47	6
Thirty-eighth street.	Wabash avenue and State street....	330	6
Twenty-seventh st.	East crossing on La Salle street....	45	6
Twenty-eighth st..	Crossing on Dashiell street.....	75	6
Twenty-ninth st..	200 feet east of Groveland avenue, eastward.....	24	8
Vernon avenue....	Twenty-ninth and Thirtieth streets.	875	6
Wabash avenue....	Twelfth and Fourteenth streets....	1,258	6
Wall street.....	Springer avenue, southward.....	366	6
Wallace street....	Douglas avenue, northward.....	956	6
Wallace street....	Thirty-second street, northward....	270	6
Wentworth avenue	Thirty-third street and Douglas ave.	1,332	8
Total.....		36,276	
Add branch pipe for hydrants.....		446	4
Add branch pipe for hydrants.....		667	6
Total feet laid in South division		37,389	

## WEST DIVISION.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in inches.
Ada street.....	North crossing on Ohio street.....	48	6
Albany avenue.....	South crossing on Warren avenue...	56	6
Albany avenue.....	Crossing on Van Buren street.....	70	6
*Albany avenue...	Van Buren street, southward.....	1,753	6
Almond street.....	Taylor street and Ashland street...	431	4
Alley E. of West- ern avenue.....	Jackson street, southward.....	272	4
Alley S. of Jack- son street.....	Alley E. of Western ave., eastward..	175	4
Alley S. of Taylor street.....	East crossing on Oakley avenue....	45	4
Armitage avenue...	Paulina street, eastward.....	106	6
Armitage avenue...	Hoyne avenue to Leavitt street....	661	4
Armitage avenue...	Commercial and Girard streets.....	706	4
Armour street.....	Ohio and Hulton streets.....	500	6
Augusta street.....	Crossing on Robey street.....	85	6
Augusta street.....	Western avenue, westward.....	640	8
Beach street.....	Taylor and Twelfth streets.....	900	8
Bickerdike square..	Armour street, eastward.....	285	4
Blanche street.....	Elston avenue, westward.....	162	4
Bloomington road.	Ashland avenue and Robey street...	2,644	12
Bonney avenue.....	Twenty-second street, southward...	525	6
*Bonney avenue...	Twenty-fourth street, northward...	325	6
Bonney avenue.....	Twenty-sixth & Twenty-seventh sts.	647	6
Bonney avenue.....	Twenty-fourth & Twenty-fifth sts...	590	6
Brown street.....	South crossing on Twentieth street.	48	6
Bryson street.....	Hoyne avenue, westward.....	280	6
Bryson street.....	Hoyne avenue, eastward.....	330	6
Bunker street.....	Beach street, westward.....	150	4
California avenue...	Crossing on Warren avenue.....	74	12
California avenue...	Congress and Harvard streets.....	1,719	12
California avenue...	Twenty-second street, southward...	163	8
California avenue...	Twelfth street, southward.....	575	6
California avenue...	375 feet N. of Ogden ave., northward	300	6
California avenue...	Division and Hirsch streets.....	1,318	6
Carroll avenue.....	East crossing on Ann street.....	56	6
Central Park ave...	Twenty-second street, southward...	462	4
Churchill street...	Robey and Leavitt streets.....	1,350	12
Clarinda street....	Paulina street, eastward.....	85	6
Clarkson court....	Lake street, southward.....	189	4
Clifton Park ave...	North crossing on Twenty-second st	30	6
Clinton street.....	Harrison and Ewing streets.....	1,122	6
Clinton street.....	Judd and Wilson streets.....	241	6
Clinton street.....	Wilson and Maxwell streets.....	235	6
Coblentz street....	Hoyne avenue and Leavitt street...	472	6
Colorado avenue...	Troy street, eastward.....	100	8
Colorado avenue...	East crossing on Troy street.....	41	8
Commercial street.	Armitage avenue, southward.....	360	6

\*Laid at expense of property owners, cost to be refunded when the required revenue is received.

## WEST DIVISION.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.		Diameter of Pipe in inches.
Commercial street.	Crossing on Bloomingdale road.....	76		6
*Congress street....	Albany avenue and Sacramento st..	648		6
Congress park.....	Van Buren street, south (east side)..	270		4
Congress park.....	Van Buren street, south (west side)..	46		4
Cornelia street.....	Paulina street, eastward.....	64		6
Cornelia street....	West crossing on Robey street.....	34		4
Coulter street.....	Oakley avenue and Leavitt street....	746		6
Courtland street...	Leavitt street and Hoyne avenue....	666		6
Crystal street.....	Robey street, eastward.....	450		4
Crystal street.....	Leavitt street, eastward.....	300		4
Currier street.....	Crittenden and Wade streets.....	380		6
Davis street.....	Thompson street, southward.....	580		6
Dekoven street.....	Crossing on Beach street.....	50		4
Diller street....	Crossing on Austin avenue.....	92		4
*Division street....	Richmond street and California ave..	360		8
Division street....	Lincoln street and Western avenue..	3,105		8
Dudley street.....	Clybourn place, northward.....	590		6
Dudley street.....	Bloomingdale road, northward.....	324		6
Edgar street.....	North crossing on Bloomingdale road	35		6
Edgar street.....	North and Wabansia avenues.....	353		6
Eleventh street....	Ashland avenue, eastward.....	425		4
Elizabeth street...	North crossing on Ohio street.....	45		6
Elk Grove avenue..	Armitage avenue and Hervey street	666		6
Elston avenue.....	Division street, southward.....	500		6
Elston avenue.....	Snow street, northward.....	1,300		8
Emily street.....	Paulina street, eastward.....	84		6
Erie street.....	Sangamon and Morgan streets.....	294		8
Erie street.....	Oakley avenue, eastward.....	310		6
Fairfield avenue..	Hirsch street, northward.....	1,142		6
Fall street.....	Lake street and Park avenue.....	266		6
Fall street.....	Crossing on Warren avenue.....	75		6
Fifteenth street...	Rockwell street, westward.....	253		6
Flournoy street...	Crossing on Rockwell street.....	154		6
Flournoy street....	Albany avenue, eastward.....	96		6
Flournoy street....	Francisco street, eastward.....	287		6
Flournoy street....	California avenue, westward.....	350		6
Flournoy street....	Washtenaw avenue, eastward.....	569		6
*Fourteenth street..	Robey and Lincoln streets.....	672		6
Fourteenth street..	Robey street and Hoyne avenue....	600		6
Francisco street...	Van Buren street, northward.....	238		6
Francisco street...	Washington boulevard, southward..	321		6
Fullerton avenue..	East crossing on western avenue....	27		8
Fullerton avenue..	Western avenue, eastward.....	406		6
Girard street.....	Armitage avenue and Clybourn pl..	602		6
Girard street.....	Bloomingdale road and Wabansia avenue.....	614		6
Girard street.....	Crossing on Bloomingdale road.....	120		6
Grenshaw street...	Idaho street and Oakley avenue....	304		6
Halsted street.....	Crossing at C. B. & Q. viaduct.....	56		6

\*Laid at expense of property owners.

## WEST DIVISION.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in inches.
Halsted street.....	Wright st., southward (west side st.)	620	6
Halsted street.....	Wright and Sixteenth streets (east side street).....	887	6
Hamburg street....	Western avenue, eastward.....	1,007	6
Hamlin avenue....	Lake and Indiana streets.....	1,740	8
Harding street.....	Indiana street, southward.....	170	6
Harrison street.....	Rockwell street and California ave..	1,384	24
†Harrison street....	Sacramento and Kedzie avenues....	1,636	6
†Harrison street....	Washtenaw ave. and Francisco st....	1,128	6
Hastings street.....	Wood street, westward.....	435	6
Hastings street.....	Hoyne avenue and Leavitt street....	627	6
*Hermitage avenue	Taylor street, northward.....	375	6
Hervey street.....	Wood street, westward.....	310	4
Hirsch street.....	Western avenue and Rockwell street	1,364	8
Hirsch street.....	Washtenaw and California avenues.	662	8
Holt street.....	Crossing on Cornelia street.....	82	4
Homan avenue.....	Ogden avenue, southward.....	480	8
Homan avenue.....	Crossing on Madison street.....	52	8
Homan avenue.....	Twenty-first street, northward.....	400	8
Homer street.....	Hoyne avenue and Leavitt street...	666	6
Honore street.....	Van Buren street, southward.....	95	6
Honore street.....	Harrison and Congress streets.....	290	6
Hoyne avenue.....	Greenwich street, southward.....	96	6
Hoyne avenue.....	Churchill street, southward.....	132	6
Hoyne avenue.....	Churchill street, northward.....	222	6
Hoyne avenue.....	North crossing on North avenue....	28	8
Hoyne avenue.....	North crossing on Bryson street....	24	6
Hoyne avenue.....	Bryson street, southward.....	543	8
Hoyne avenue.....	Homer street and Armitage avenue.	265	6
Hoyne avenue.....	Coblenz and Lubeck streets.....	83	6
Hoyne avenue.....	Seventeenth and Eighteenth streets.	325	8
Hoyne avenue.....	North crossing on Parmelee street..	20	4
Hoyne avenue.....	Laughton and Parmelee streets....	330	6
Huron street.....	Ashland and Hoyne avenues.....	3,377	8
Huron street.....	Oakley avenue, eastward.....	420	6
Idaho street.....	Polk and Flournoy streets.....	360	6
Indiana street.....	Hamlin avenue and Harding street.	1,020	6
Indiana street.....	Milwaukee avenue and Sangamon st	827	8
Irving avenue.....	Taylor street, northward.....	140	6
Jackson street.....	East crossing on Troy street.....	41	8
Jane street.....	West crossing on Robey street.....	34	6
Jane street.....	Paulina street, eastward.....	84	6
Kedzie avenue.....	Crossing on Warren avenue.....	78	12
Kedzie avenue.....	Madison street, southward.....	254	12
Kedzie avenue.....	189 feet North of Van Buren street, southward...	391	12
Kedzie avenue.....	Washington boulevard and Lake st.	525	12
Kedzie avenue.....	Twenty-first street, southward.....	190	8

\*Of this amount 622 feet were laid at expense of property owners.

\*Laid at expense of property owners.

\*Of this amount 950 feet were laid at expense of property owners.

## WEST DIVISION.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in inches.
Lafin street.....	Taylor and Twelfth streets.....	800	8
Lake street.....	N. Water street, eastward.....	103	6
Lake street.....	Clarkson court and Fairfield avenue.	640	6
Lake street.....	Clarkson court, westward.....	70	6
Lawndale avenue..	Twenty-fifth and Twenty-sixth sts..	600	4
Leavitt street.....	Eighteenth street, northward.....	264	6
Leavitt street.....	Huron street, northward.....	150	8
Leavitt street.....	North avenue, southward.....	322	8
Leavitt street.....	Huron street, southward.....	60	6
Leavitt street.....	Milwaukee avenue, northward.....	136	8
Leavitt street.....	South crossing on North avenue....	50	8
Leavitt street.....	Lubeck and Hamburg streets.....	582	8
Leavitt street.....	Churchill and Snow streets.....	4,074	12
Lexington avenue..	Leavitt street, eastward.....	260	4
Lexington avenue..	Washtenaw avenue, eastward.....	165	6
*Lexington avenue.	California avenue, westward.....	429	6
*Lincoln street....	Fourteenth street, southward.....	263	6
Lincoln street.....	Twelfth street, northward.....	515	6
Lincoln street.....	Polk street, southward.....	69	6
Lunn court.....	West crossing on Western avenue..	45	6
Lubeck street.....	Leavitt and Robey streets.....	1,345	6
Madison street....	California and Sacramento avenues.	1,203	8
Madison street....	Albany avenue, westward.....	3,110	8
Marshfield avenue..	South crossing on Polk street.....	43	6
Millard avenue....	Twenty-fifth street, southward....	460	8
Monroe street.....	Albany avenue, westward.....	212	4
Monroe street.....	California avenue, eastward.....	560	6
Morgan street....	Twentieth street, southward.....	50	8
Morgan street....	Twenty-first and Twenty-second sts.	442	8
Morgan street....	Clayton and Twentieth streets....	200	8
Newberry avenue..	Maxwell and Fourteenth streets....	472	6
Nineteenth street..	Center avenue and Allport street...	262	8
Nineteenth street..	Allport and Throop streets.....	265	8
Nineteenth street..	Crossing on Allport Street.....	73	8
Nineteenth street..	Sawyer and Spaulding avenues.....	333	4
Norton street.....	Polk street, southward.....	393	4
Oakley avenue.....	350 feet south of Thirteenth street, southward.	120	6
Oakley avenue.....	South crossing on North avenue....	50	6
Oakley avenue.....	153 feet north of Frankfort street, northward.	50	4
Oakley avenue.....	293 feet north of Frankfort street, northward.	47	6
Oakley avenue.....	Huron and Erie streets.....	364	6
Oakley avenue.....	Twenty-second and Ambrose streets	335	6
Olive street.....	South crossing on Taylor street.....	46	6
Oliver place.....	Walker court, westward.....	150	4
Park avenue.....	California avenue, eastward.....	390	6
Park avenue.....	Homan avenue, eastward.....	650	6
Parmelee street....	Oakley avenue, westward.....	436	6
Parmelee street....	Leavitt street and Hoyne avenue....	666	4

\*Laid at expense of property owners.

## WEST DIVISION.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in inches.
Paulina street.....	Seventeenth and Eighteenth streets.	338	6
Paulina street.....	Taylor street, southward.....	404	6
* Paulina street.....	183 ft. N. of Taylor street, northward	250	6
Paulina street.....	South crossing on Kinzie street.....	60	8
Paulina street.....	Chicago avenue, northward.....	470	8
Paulina street.....	Armitage avenue, northward.....	400	6
Phillips street.....	Green street, eastward.....	164	6
Polk street.....	California avenue, westward.....	273	6
Polk street.....	Wood street and Winchester avenue	928	8
Polk street.....	Hermitage avenue and Wood street.	410	8
Polk street.....	Ashland avenue and Paulina street..	600	8
Raleigh court.....	Thirteenth street, southward.....	432	4
* Richmond street..	Division and Linwood streets.....	1,771	6
Robey street.....	Churchill street, southward.....	220	12
Robey street.....	Coblentz and Lubeck streets.....	250	8
Robey street.....	727 feet South of Blue Island avenue, southward.	700	6
Robey street.....	Lubeck and Coblentz streets.....	254	12
Robey street.....	Huron street, northward.....	100	8
Robey street.....	Iowa and Division streets.....	1,420	8
Rockwell street....	North avenue, southward.....	578	6
Rockwell street....	Fifteenth street, northward.....	225	6
St. Louis avenue...	Ogden avenue, southward.....	1,100	8
sacramento avenue	South crossing on Van Buren street.	48	8
Sacramento avenue	Twenty-sixth street, northward. ...	842	4
Sacramento avenue	Crossing on Warren avenue.....	92	8
Sawyer avenue.....	Nineteenth street, southward.....	503	6
Sehor street.....	West crossing on Clinton street.....	30	6
Selden street.....	East crossing on Lincoln street.....	41	6
Shober street.....	440 ft. S. of Bryson street, southward	158	6
Shober street.....	South crossing on North avenue.....	50	6
Shober street.....	Thompson street, southward.....	150	6
Sloan street.....	193 ft. W. of Elston ave., westward..	90	4
Snow street.....	Elston avenue, southward.....	793	12
Spaulding avenue..	Twenty-first street, southward.....	288	6
Spaulding avenue..	Nineteenth street, southward.....	200	6
Street W. of Western avenue..	Coulter street, southward.....	360	4
Superior street....	Washtenaw avenue, eastward.....	580	6
Talman avenue.....	Fifteenth street, northward.....	284	6
Taylor street.....	Ogden avenue and Kendall street..	324	8
Taylor street.....	Lincoln and Robey streets.....	624	8
Taylor street.....	Robey and Myrtle streets.....	270	8
* Taylor street.....	Hermitage avenue and Paulina st..	334	8
Thomas street....	Crossing on Robey street.....	85	6
Thirteenth street..	Lincoln and Robey streets.....	595	6
Thirteenth street..	Oakley avenue and Raleigh court....	449	6
Tremont street....	Kedzie avenue, westward.....	300	6
Troy street.....	North crossing on Van Buren street.	28	6
Troy street.....	Colorado avenue and Jackson street	487	6

\*Laid at expense of property owners.

## WEST DIVISION.—CONTINUED.

STREET.	BETWEEN WHAT STREETS.	Length of Pipe in ft.	Diameter of Pipe in Inches.
Turner avenue.....	Twenty-first street, southward.....	266	6
Twelfth street....	Leavitt street, westward.....	527	4
Twelfth street....	Western and Campbell avenues.....	641	8
Twenty-first street.	Sawyer and Turner avenues.....	659	4
Twenty-second st..	West crossing on Bonney avenue...	41	6
Twenty-second st..	Clifton Park and Central Park aves.	333	6
Twenty-second st..	Central Park avenue, westward.....	88	6
*Twenty-fourth st..	Lawndale and Bonney avenues.....	333	6
Twenty-fifth street.	Sacramento and California avenues.	1,318	6
Twenty-sixth street	Lawndale and Bonney avenues.....	331	4
Twenty-sixth street	Sacramento avenue, eastward.....	312	4
Upton street.....	Western avenue, eastward.....	50	6
Van Buren street..	Rockwell street and Washtenaw ave	725	6
Van Buren street..	Kedzie avenue, eastward.....	1,186	6
Vernon Park place.	Center avenue and Sibley street....	880	6
Wabansia avenue..	Elk Grove avenue and Dudley street	316	6
Walleck place.....	Eighteenth street, northward.....	235	4
Walnut street.....	Kedzie avenue, westward.....	450	6
Warren avenue....	Homan and Albany avenues.....	1,980	6
Washtenaw avenue.	South crossing on Van Buren street	46	6
Washtenaw avenue.	Harrison street, southward.....	662	8
West Water street..	North crossing on Lake street.....	37	6
Western avenue....	Twenty-first and Laughton streets..	1,990	16
Western avenue....	Division and Hirsch streets.....	1,281	12
Western avenue....	Frankfort street and Fullerton aves.	1,825	8
Whipple street....	North crossing on Van Buren street	25	6
Whipple street....	Colorado avenue, southward....	170	6
Wilcox avenue.....	Sacramento avenue, eastward.....	465	6
Willis place.....	Thirteenth street, southward.....	470	4
Wood street.....	North crossing on Eighteenth street	30	8
Wood street.....	Harrison and York streets.....	425	8
Wood street.....	North crossing on Armitage avenue.	47	8
Yeaton street.....	Lincoln street, eastward.....	400	6
Total.....		125740	.....
Add branch pipes for hydrants.....		923	4
Add branch pipes for hydrants.....		3,268	6
Total laid in West Division....		129931	.....

\*Laid at expense of property owners.

## RECAPITULATION OF PIPE LAID DURING 1886, INCLUDING HYDRANT BRANCHES.

DIVISION.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Total Pipe in feet.
North.....	1,713	4	6,719	6	7,423	8	107	12	0	16	1,604	24	5,490	36	23,056		
South.....	8,720	4	23,062	6	4,540	8	209	12	0	16	868	24	0	36	37,389		
West.....	13,442	4	60,998	6	38,460	8	13,657	12	1,990	16	1,384	24	0	36	129,931		
Total in feet.	23,875	4	90,779	6	50,423	8	13,973	12	1,990	16	3,846	24	5,490	36	190,376		
Total in miles.	443.66	4	17,013.6	6	9330.6	8	254.3	12	0.360	16	0.254	24	1.010	36	363.36		

**RECAPITULATION OF HYDRANT BRANCHES LAID DURING 1886.**

DIVISION.	Length of Pipe in feet.	Diameter of Pipe in inches.	Length of Pipe in feet.	Diameter of Pipe in inches.	Total Laid in Feet
North....	50	4	394	6	444
South.....	446	4	667	6	1,113
West.....	923	4	3,268	6	4,191
Total feet....	1,419	4	4,329	6	5,748

# PIPE TAKEN UP OR ABANDONED DURING 1886.

The following statement shows in detail the location and size of pipe taken up or abandoned during 1886, and of that substituted therefor:

STREET.	BETWEEN WHAT STREETS.	TAKEN UP OR ABANDONED.		SUBSTIT'D.	
		Distance in feet.	Diameter in inches.	Distance in feet.	Diameter in inches.
Blackhawk st.	West crossing on Mohawk st.	25	6	25	8
Bloomington rd.	Edgar and Paulina sts.	360	6	360	12
Clinton st.	Harrison and Ewing streets.	1,122	4	1,122	6
Currier st.	Crittenden and Wade streets.	380	4	380	6
*Dearborn st.	Randolph and Lake streets.	387	4	.....	.....
Dearborn st.	S. Water st., southward.	345	4	.....	.....
Edgar st.	N. crossing on Bloomington rd.	35	4	35	6
Ellis ave.	Douglas and Egan aves.	2,699	4	2,699	6
*Erie st.	Crossing on St. Clair st.	74	4	74	8
Erie st.	Sangamon and Morgan sts.	294	4	294	8
Fifteenth st.	Union and Halsted sts.	465	8	.....	.....
*Haddock pl.	La Salle and Franklin sts.	600	3	.....	.....
Halsted st.	Fifteenth and Wright sts.	266	8	532	6
Huron st.	Wells and Franklin sts.	385	4	385	6
Huron st.	Ashland ave and Leavitt st.	3,377	4	3,377	8
Indiana st.	Milwaukee ave, westward.	327	6	327	8
*Indiana st.	Sangamon st., eastward.	500	4	500	8
Leavitt st.	Milwaukee ave., northward.	50	6	50	8
Leavitt st.	Churchill and Coblenz sts.	1,388	8	1,388	12
Leavitt st.	Hamburg and Lubeck sts.	580	8	580	12
Maple st.	Dearborn ave and State st.	350	4	350	8
Mohawk st.	North ave and Center st.	2,631	4	2,631	6
Mohawk st.	Clybourn and North aves.	500 6 1,490 4	6	1,990	8
Monroe st.	Clark st and Fifth ave.	650	4	.....	.....
*Monroe st.	Fifth ave and Market st.	782	4	.....	.....
Ohio st.	East crossing on St. Clair st.	42	4	42	8
Paulina st.	Chicago ave., northward.	470	4	470	8
Robey st.	Lubeck and Coblenz sts.	250	12	250	8
Rush st.	Illinois st., southward.	441	4	441	8
Rush st.	Superior and Erie sts.	510	4	510	8
Sebor st.	West crossing on Clinton st.	30	4	30	6
*Sherman st.	Jackson and Van Buren sts.	400	3	.....	.....
*S. Water st.	Clark st. and Fifth ave.	600	3	.....	.....

\*Abandoned.

STREET.	BETWEEN WHAT STREETS.	TAKEN UP OR ABANDONED		SUBSTIT'D.	
		Distance in feet.	Diameter in inches.	Distance in feet.	Diameter in inches.
*Superior st....	Market and Kingsbury sts.....	1,180	4	1,180	8
Twelfth st....	S. branch of river, eastward.....	63	16	.....	.....
Twelfth st....	S. branch of river, westward.....	390	16	.....	.....
Twelfth st....	Beach st., eastward.....	425	16	.....	.....
*Twelfth st....	Canal st., eastward.....	243	6	.....	.....
Twelfth st....	Siphon pipe across river.....	258	24	.....	.....
Vernon ave....	Twenty-ninth and Thirtieth sts..	875	4	875	6
*Walton pl....	Rush st., eastward.....	742	4	742	6
Wright st....	West crossing on Halsted st.....	27	8	.....	.....
	Hydrant branches.....	364	4	364	6
	Total.....	27,372	.....	22,003	.....

Abandoned.

RECAPITULATION OF PIPE TAKEN UP OR  
ABANDONED DURING 1886:

1,600 feet of	.....	3-inch pipe
20,155	" .....	4 "
1,505	" .....	6 "
2,726	" .....	8 "
250	" .....	12 "
878	" .....	16 "
258	" (syphon pipe) .....	24 "

TABLE SHOWING AMOUNT OF PIPE IN USE IN THE CITY,  
AT THE CLOSE OF 1886.

DIAMETER OF PIPE.	1885.	1886.			
	Amount in use in Feet.	Amount Laid in feet.	Am't Taken up or Abandoned in feet.	Grand Total in Feet in use at the end of 1886.	Grand Total in Miles in use at the end of 1886.
36 inch.....	41,174	5,490	.....	46,664	84411
30 inch.....	39	.....	.....	39	0.411
28 inch.....	160	.....	.....	160	0.160
24 inch.....	90,895	3,846	*258	94,483	174411
16 inch.....	81,298	1,990	878	82,410	154411
12 inch.....	167,973	13,973	250	181,696	344411
10 inch.....	8,012	.....	.....	8,012	14411
8 inch.....	592,305	50,423	2,726	640,002	1214411
6 inch.....	1,245,288	90,779	1,505	1,334,562	2524411
4 inch.....	741,208	23,875	20,155	744,928	1414411
3 inch.....	15,637	.....	1,600	14,037	24411
Total in feet	2,983,989	190,376	27,372	3,146,993	5964411
Total in Miles....	565749 8880	36486 8880	5978 8880	596441 8880	.....

The following tables show the number, size and location of stop-valves put in during the year, the number and size of those previously put in, and the number and size of all in use by the city at the end of 1886:

## NORTH DIVISION.

LINE OF PIPE.	LOCATION.	SIZE OF VALVES.						
		4"	6"	8"	12"	16"	24"	36"
Alley E. of Astor st.	North line of Schiller st.	1						
Belden av.	West line of Sheffield av		1					
Burton pl.	West line of State st.		1					
Chicago av.	East line of Market st.						1	
Chicago av.	East line of Roberts st.						1	
Clark st.	Between viaduct and bridge (blow off)	1						
Erie st.	West line St. Clair st.			1				
Eugenie st.	East line Hurlbut st.		1					
Fullerton av	West line of Larrabee st.			1				
Huron st.	West line of St. Clair st.		1					
*Huron st.	West line of Wells st.		1					
Kemper pl.	West line of Larrabee st.		1					
Larrabee st.	South line of Oak st.						1	
Larrabee st.	North line of Chicago av. (blow off)			1				
Lewis st.	West line of Clybourn av		1					
Lutz pl.	South line of North av.	1						
Market st.	North and south lines of Chicago av.				2			
*Mohawk st.	South line Blackhawk st.			1				
*Mohawk st.	North line of Clybourn av			1				
*Mohawk st.	South line of North av			1				
Mohawk st.	North line of Menominee st.		1					
Mohawk st.	South line of Center st.		1					
N. Water st.	At viaduct abutment.	1						
Ontario st.	West line of Franklin st. (fire cistern)		1					
Orchard st.	South line of Fullerton av		1					
Pearson st.	East of Wells st. (blow off)	1						
Pearson st.	Near Water Works tower						1	1
*Rush st.	North line Huron st.			1				
St. Clair st.	North line Ontario st.			1				
St. Clair st.	North line of Huron st.			1				
Sedgwick st.	At Locust st. (blow off)	1						
Total in North Division		6	11	9	2		3	2
Previously put in		177	334	253	30	12	9	1
Total		183	345	262	32	12	12	3
Less by valves taken out and re-placed by others of different size		5						
Grand total in North Division		178	345	262	32	12	12	3

\*In place of 4 inch.

## SOUTH DIVISION.

LINE OF PIPE.	LOCATION.	SIZE OF VALVES.						
		4"	6"	8"	12"	16"	24"	36"
Aldine sq...	West line of Vincennes av	1	.	.	.	.	.	.
Aldine st ..	North line of Egan av....	.	1	.	.	.	.	.
Alley E. of Wabash av	North line of S. Water st.	.	1	.	.	.	.	.
Archer av...	North line of Douglas av.	.	1	.	.	.	.	.
Calhoun pl.	E. & W. lines of Fifth av	.	.	2	.	.	.	.
Cottage Grove av...	South line of Prairie av...	1	.	.	.	.	.	.
Cottage Grove av...	S. line of Twenty-fourth st	1	.	.	.	.	.	.
Cottage Grove av...	S. line of Twenty-ninth st	1	.	.	.	.	.	.
Court pl....	E. line of Fifth av.....	.	.	1	.	.	.	.
Dashiel st..	S. line of Thirty-first st..	.	1	.	.	.	.	.
Dearborn st	N. of Lake st.(fire cistern)	.	1	.	.	.	.	.
Douglas av.	West line of Laurel st....	.	1	.	.	.	.	.
Douglas av.	W. line Dashiel st.....	.	1	.	.	.	.	.
Douglas av.	East line of Emerald av..	.	1	.	.	.	.	.
Egan av....	East line of Prairie av...	.	.	1	.	.	.	.
*Ellis av....	S. line of Douglas av.....	.	1	.	.	.	.	.
*Ellis av....	N. line of 37th st.....	.	1	.	.	.	.	.
*Ellis av....	North line of Egan av....	.	1	.	.	.	.	.
Fifth av....	N line of Washington st..	.	.	1	.	.	.	.
Fifth av....	North line of Madison st (fire cistern)	.	1	.	.	.	.	.
Fifth av....	North line of Randolph st (fire cistern)	.	1	.	.	.	.	.
Fifth av....	South line of Randolph st.	.	.	1	.	.	.	.
Fifth av....	South of Adams st (fire cistern)	.	1	.	.	.	.	.
Grand bd...	North line of 37th st.....	.	1	.	.	.	.	.
Haines st..	South line of Lyman st....	.	1	.	.	.	.	.
Jackson st..	At Clark st. (fire cistern)	.	1	.	.	.	.	.
Lake P'k av	South line of 29th st....	.	1	.	.	.	.	.
La Salle st..	South line of 26th st.....	.	1	.	.	.	.	.
La Salle st..	South line of 33rd st.....	.	1	.	.	.	.	.
La Salle st..	North line of Douglas av	.	1	.	.	.	.	.
La Salle st..	At Monroe st (fire cistern)	.	1	.	.	.	.	.
Long John st	South line of Douglas av.	.	.	1	.	.	.	.
Paulina st..	North line of 37th st.....	.	1	.	.	.	.	.
Salt st.....	South line of Archer av...	1	.	.	.	.	.	.
Selma st....	South line of Lyman st....	1	.	.	.	.	.	.
Springer av.	West line of Laurel st....	.	1	.	.	.	.	.
Taylor st...	West line of Fifth avenue	.	.	.	.	.	1	.
Thirty-third ct...	West line of Ashland av..	1	.	.	.	.	.	.
Thirty-fourth st..	E. line of S. Park av....	.	1	.	.	.	.	.
Thirty-seventh st..	E. line of Archer av.....	.	.	1	.	.	.	.
Vernon av..	South line of 29th st.....	.	1	.	.	.	.	.
Wabash av.	South line of 12th st.....	.	1	.	.	.	.	.

\*In place of 4-inch.

## SOUTH DIVISION—CONTINUED

LINE OF PIPE.	LOCATION.	SIZE OF VALVES.						
		4"	6"	8"	12"	16"	24"	36"
Wabash av.	North line of 14th st..		1					
Wentworth av....	South line of 33rd st. ....			1				
Total in South Division.....		7	28	9			1	
Previously put in.....		146	441	548	64	17	13	4
Total.....		153	469	557	64	17	14	4
Less by valves taken out and re- placed by others of different size }		3						
Grand total in South Division...		150	469	557	64	17	14	4

## WEST DIVISION.

LINE OF PIPE.	LOCATION.	SIZE OF VALVES.						
		4"	6"	8"	12"	16"	24"	36"
Ada st....	North line of Ohio st....		1					
Albany av..	South line of Colorado av		1					
Albany av..	S. line of Van Buren st..		1					
Albany av..	South line of Harrison st..		1					
Almond st..	South line of Taylor st....	1						
Armitage av	West line of Hoyne av....	1						
Armitage av	West line of Wood st....	1						
Armitage av	East line of Leavitt st....	1						
Augusta st..	West line of Robey st....		1					
Barber st...	East line of Halsted st....	1						
Beach st....	70 ft. N. of Twelfth st....			1				
Beach st....	South line of Taylor st....			1				
Bloomingsdale rd	West line of Ashland av..				1			
Bloomingsdale rd	West line of Paulina st...				1			
Bloomingsdale rd	West line Wood st....				1			
Bloomingsdale rd	W. line of Elk Grove av..				1			
Bonney av..	S. line of Twenty-second.		1					
Bonney av..	S. line of Twenty-fourth..		1					
Bonney av..	S. line of Twenty-sixth st		1					
Bryson st...	West line of Hoyne av....		1					
California..	N. & S. line of Harrison st				2			
California...	S. line of Van Buren st...				1			
California...	South line of Twelfth st..		1					
California...	South line of Polk st....				1			
California...	North line of Division st.		1					
California...	South line of Hirsch st....		1					
Central Park avenue	South line of 22nd st....	1						
Churchill st	West line of Robey st....				1			
Clarinda st..	West line of Paulina st...		1					
*Clinton st..	South line of Harrison st..		1					
*Clinton st..	South line of Polk st....		1					
Coblentz st..	West line of Hoyne av....		1					
Coblentz st..	East line of Leavitt st....		1					
Commercial st...	North and South lines of Bloomingsdale rd		2					
Commercial st...	S. line of Armitage av....		1					
Congress Pk	S. line of Van Buren st..	1						
Cornelia st.	West line of Robey st....	1						
Coulter st..	West line of Leavitt st....		1					
Courtland st	East line of Leavitt st....		1					
Courtland st	West line of Hoyne av....		1					
Division st..	West line of Hoyne av....			1				
Division st..	West line of Leavitt st....			1				
Division st..	West line of Oakley av....			1				
Dudley st...	North and South lines of Bloomingsdale rd		2					
Dudley st...	North line of Clybourn pl		1					
Edgar st....	North and South lines of Bloomingsdale rd		2					
Elizabeth st	North line of Ohio st....		1					
Elk Grove av	N. and S. lines of Bloomingsdale rd.		2					

\*In place of 4-inch.

## WEST DIVISION.—CONTINUED.

LINE OF PIPE.	LOCATION.	SIZE OF VALVES.						
		4"	6"	8"	12"	16"	24"	36"
Elk Grove av	North line of Armitage av	1						
Elston av	North line of Snow st.		1					
Emily st.	West line of Paulina st.	1						
*Erie st.	West line of Sangamon st		1					
Fairfield av.	South line of Thompson st	1						
Fifteenth st	East line of Halsted st.	1						
Fifteenth st	West line of Rockwell st.	1						
Flournoy st.	West line of California av	1						
Flournoy st.	West line of Rockwell st.	1						
Fourteenth st.	West line of Robey st.	1						
Fullerton av	East line of Western av.	1						
Girard st.	N. and S. lines of Bloomingdale rd.	2						
Girard st.	S. line of Armitage av	1						
Girard st.	North line of Clybourn pl	1						
Girard st.	N. line of Wabansia av.	1						
Hamburg st	West line of Oakley av.	1						
Hamburg st	East line of Western av.	1						
Hamlin av.	South line of Kinzie st.		1					
Hamlin av.	North line of Lake st.		1					
Harrison st.	E. and W. lines of California av.		2					
Harrison st.	W. line of Sacramento av		1					
Harrison st.	West line of Kedzie av.		1					
Hastings st.	West line of Wood st.	1						
Hervey st.	West line of Wood st.	1						
Hirsch st.	West line of Western av.		1					
Hirsch st.	West line of Rockwell st.	1						
Hirsch st.	E. line of California av.		1					
Homan av.	South line of Ogden av.		1					
Homer st.	East line of Leavitt st.	1						
Homer st.	West line of Hoyne av.	1						
Honore st.	S. line of Van Buren st.	1						
Hoyne av.	N. line of Blue Island av.	1						
Hoyne av.	North line of Armitage av	1						
Hoyne av.	N. and S. lines of Churchill st.	2						
*Huron st.	West line of Paulina st.		1					
*Huron st.	West line of Lincoln st.		1					
*Huron st.	West line of Robey st.		1					
*Huron st.	West line of Hoyne av.		1					
*Indiana st.	West line of Peoria st.		1					
Indiana st.	West line of Hamlin av.		1					
Jane st.	West line of Paulina st.		1					
Jane st.	West line of Robey st.		1					
Kedzie av.	N. line of Washington bd			1				
Kedzie av.	S. line of Lake st. (blow off).		1					
Kedzie av.	South line of Madison st.			1				
Lafin st.	South line of Taylor st.		1					
Lake st.	East line of W. Water st.		1					
Lake st.	W. line of California av.		1					

\*In place of 4-inch.

## WEST DIVISION.—CONTINUED.

LINE OF PIPE.	LOCATION.	SIZE OF VALVES—						
		4"	6"	8"	12"	16"	24"	36"
Leavitt st...	N. line Blue Island av...			1				
Leavitt st...	North line of Huron st...			1				
Leavitt st...	N. line of Frankfort st...			1				
Leavitt st...	South line of North av...			1				
Leavitt st...	N. line of Milwaukee av...			1				
Leavitt st...	N. line of Wilmot av...			1				
Leavitt st...	North line of Ems st...				1			
†Leavitt st...	North line of Frankfort st...				1			
†Leavitt st...	N. line of Armitage av...				1			
Leavitt st...	N. line of Churchill st...				1			
Leavitt st...	South line of Fullerton av...				1			
Leavitt st...	S. line of Armitage av (blow off)...	1						
Lexington st...	W. line of California av...		1					
Lincoln st...	N. line of Blue Island av...		1					
Lincoln st...	S. line of Fourteenth st...		1					
Lubeck st...	West line of Hoyne av...		1					
Lubeck st...	West line of Robey st...		1					
Lubeck st...	East line of Leavitt st...		1					
Madison st...	West line of Kedzie av...			1				
Madison st...	East line of Homan av...			1				
Nineteenth st...	West line of center av...			1				
Oakley av...	N. line of Blue Island av...		1					
Oakley av...	South line of North av...		1					
Oakley av...	South line of 22nd st...		1					
Paulina st...	South line of Taylor st...		1					
Paulina st...	N. line of Armitage av...		1					
Paulina st...	N. and S. lines of Bloomingdale rd...		2					
Polk st...	West line of Wood st...			1				
Polk st...	West line of Ashland av...			1				
Polk st...	W. line of California av...		1					
Richmond st...	South line of Division st...		1					
Richmond st...	North line of Augusta st...		1					
Robey st...	North line of Huron st...			1				
Robey st...	N. line of Churchill st (6" blow off)...		1		1			
Robey st...	South line of Churchill st...			1				
Robey st...	North line of Augusta st...			1				
Rockwell st...	South line of North av...		1					
St. Louis av...	South line of Ogden av...			1				
Sebor st...	West line of Clinton st...		1					
Shober st...	North line of Division st...		1					
Shober st...	South line of North av...		1					
Shober st...	South line Thompson st...		1					
Snow st...	West line of Elston av...				1			
*Superior st...	West line of Sedgwick st...			1				
*Superior st...	West line of Market st...			1				
*Superior st...	W. line of Townsend st...			1				
†Superior st...	E. & W. lines of Robey st...			2				
Thomas st...	West line of Robey st...		1					

\*In place of 4-inch.

†In place of 8-inch.

## WEST DIVISION.—CONTINUED.

LINE OF PIPE.	LOCATION.	SIZE OF VALVE.						
		4''	6''	8''	12''	16''	24''	36''
Tremont st.	West line of Kedzie av.		1					
Troy st.	S. line of Colorado av.		1					
Twelfth st.	West line of Western av.			1				
Twelfth st.	West line of Leavitt st.	1						
Twenty-second st.	W. line of Central Pk av.		1					
Twenty-fifth st.	W. line of California av.		1					
Van Buren st.	West line of Rockwell st.		1					
Vernon Park pl.	West line of Center av.		1					
Vernon Park pl.	West line of Lytle st.		1					
Walnut st.	West line of Kedzie av.		1					
Warren av.	West line of Kedzie av.		1					
Warren av.	East line of Homan av.		1					
Western av.	N. line of Blue Island av.			1				
Western av.	South line of Hirsch st.				1			
Western av.	North line of Frankfort st.			1				
Western av.	South line of Fullerton av.			1				
Western av.	S. line of Twenty-first st.					1		
Western av.	North line of Laughton st.			1				
Wood st.	N. and S. lines of Bloomingdale rd.			2				
Wood st.	South line of Harrison st.			1				
Wood st.	N. and S. lines of Armitage av.			2				
Wright st.	East line of Halsted st.		1					
Total in West Division.		12	96	51	19	1	0	0
Previously put in.		514	889	595	85	38	21	5
Total.		526	985	646	104	39	21	5
Less by valves taken out and replaced by others of different sizes.		11		2				
Grand total in West Division.		515	985	644	104	39	21	5

# **RECAPITULATION** **OF STOP VALVES PUT IN DURING 1886.**

DIVISION.	SIZE OF VALVES.							TOTAL.
	4"	6"	8"	12"	16"	24"	36"	
North.....	6	11	9	2	0	3	2	33
South.....	7	28	9	0	0	1	0	45
West.....	12	96	51	19	1	0	0	179
Total.....	25	135	69	21	1	4	2	257

Number put in during 1886.....257

Number removed and replaced during 1886..... 21

Net increase during 1886.....236

## **NUMBER AND SIZE OF VALVES IN USE BY THE CITY AT THE END OF 1886.**

DIVISION.	SIZE OF VALVES.							TOTAL.
	4"	6"	8"	12"	16"	24"	36"	
North.....	178	345	262	32	12	12	3	844
South.....	150	469	557	64	17	14	4	1275
West.....	515	985	644	104	39	21	5	2313
Total.....	843	1799	1463	200	68	47	12	4432

## SOUTH DIVISION.—CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2½-inch Single.
West side..	Wentworth ave., 323 feet S. of 37th st.....	.....	1	.....
East side...	Wentworth ave., 327 feet N. of Egan ave ...	.....	1	.....
	Total in South Division.....	.....	50	39
	Previously put in.....	188	601	641
	Total .....	188	651	680
	Less by single Hydrant taken out and re- placed by another of different size.....	.....	.....	1
	Total in use in South Division.....	188	651	679

\*In place of single.

## WEST DIVISION.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2¼-inch Single.
*N. W. cor.	Ada and Lake streets.....		1	
N. E. cor.	Ada and Ohio streets.....		1	
N. W. cor.	Albany avenue and Congress street.....		1	
N. W. cor.	Albany avenue and Flournoy street.....		1	
N. W. cor.	Albany avenue and Lexington street.....		1	
N. W. cor.	Albany avenue and Polk street.....		1	
South side.	Alley S. of Jackson street, E. of Western av.....			1
West side..	Allport street, 300 feet N. of 19th street.....			1
West side..	Allport street, 304 feet N. of 18th street.....			1
North side.	Armitage av. bet. Leavitt st. and Hoyne av.....			1
North side.	Augusta st. bet. Western av. & Seymour st.....		1	
N. E. cor.	Augusta and Seymour streets.....		1	
N. W. cor.	Beach and Dekoven streets.....		1	
N. W. cor.	Beach and Bunker streets.....		1	
South side..	Bickerdike sq. bet. Armour & Bickerdike sts.....			1
West side..	Blue Island av. 243 feet north of 19th street.....		1	
N. E. cor.	Blue Island avenue and 20th street.....		1	
West side..	Blue Island avenue, 300 ft. N. of 22nd st.....		1	
West side..	Blue Island ave. bet. Paulina & Wood sts.....		1	
West side..	Bonney avenue, 435 ft. S. of 22nd street.....		1	
West side..	Bonney avenue, 300 ft. N. of 24th street.....			1
West side..	Bonney avenue, 300 ft. S. of 26th street.....			1
N. W. cor.	Bonney avenue and 27th street.....		1	
West side..	Bonney avenue 300 ft. S. of 24th street.....			1
N. W. cor.	Bonney avenue and 25th street.....			1
West side..	Brown street, bet. 12th and Taylor streets.....			1
West side..	Bryson street, bet. Lincoln and Robey sts.....			1
West side..	Bryson street, bet. Hoyne av. & Robey st.....			1
N. W. cor.	California avenue and Harrison street.....		1	
N. W. cor.	California avenue and Flournoy street.....		1	
West side..	California avenue, 300 ft. S. of 12th street.....		1	
S. W. cor.	California avenue and 22nd street.....		1	
N. W. cor.	California avenue and Lexington street.....		1	
N. W. cor.	California avenue and Polk street.....		1	
West side..	California avenue 600 ft. N. of Ogden av.....			1
N. E. cor.	California avenue and Division street.....		1	
N. E. cor.	California avenue and Werder street.....		1	
N. E. cor.	California avenue and Moltke street.....		1	
N. E. cor.	California avenue and Bismark street.....		1	
West side..	Canal street, 200 ft. S. of 16th street.....		1	
North side.	Carroll avenue, bet. Leavitt st. & Hoyne av.....			1
North side.	Carroll avenue, bet. Hoyne av. & Robey st.....			1
North side.	Carroll avenue, bet. Lincoln and Robey sts.....			1
North side.	Carroll avenue, bet. Lincoln and Wood sts.....			1
North side.	Carroll avenue, bet. Paulina and Wood sts.....			1
North side.	Carroll avenue, bet. Paulina st & Ashland av.....			1

\*In place of single.

## WEST DIVISION.—CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2½-inch Single.
West side..	Central Park avenue, 300 ft. S. of 22nd st. ....			1
North side..	Churchill st., bet. Robey st. and Hoyne av. ....	1		
North side..	Churchill st., bet. Leavitt st. and Hoyne av. ....	1		
S. E. cor...	Clarinda and Paulina streets ..... 1			1
East side...	Clinton st., bet. Van Buren and Harrison sts. ....	1		
S. W. cor...	Clinton and Van Buren streets..... 1			1
West side..	Clinton st., 190 ft. N. of Adams street..... 1			1
N. W. cor...	Clinton and Mather streets..... 1			1
West side..	Clinton st., bet. Jackson and Van Buren sts. ....	1		1
North side..	Coblentz st., bet. Hoyne av. and Leavitt st. ....	1		1
S. E. cor...	Colorado av. and Troy street..... 1			1
West side..	Commercial street, bet. Clybourn av. and Armitage pl. ....	1		1
N. W. cor...	Congress Park and Van Buren st. .... 1			1
North side..	Congress st., 300 ft. E. of Albany av. .... 1			1
N. W. cor...	Congress st. and Sacramento av. .... 1			1
S. E. cor...	Cornelia and Paulina streets ..... 1			1
N. W. cor...	Coulter st., and first st W. of Western av. ....	1		1
North side..	Coulter st., 350 ft. W. of Leavitt st. .... 1			1
North side..	Courtland st., bet. Leavitt st. and Hoyne av. ....	1		1
North side..	Crystal st., bet. Wood and Robey sts. .... 1			1
North side..	Crystal st., bet. Leavitt and Robey sts. .... 1			1
S. W. cor...	Currier and Crittenden streets..... 1			1
West side..	Davis st., 300 ft. S. of Thompson st. .... 1			1
N. W. cor...	Davis and Thompson streets..... 1			1
N. W. cor...	Desplaines and School streets..... 1			1
North side..	Division st., bet. Hoyne av. and Robey st. ....	1		1
North side..	Division st., bet. Hoyne av. and Leavitt st. ....	1		1
N. W. cor...	Division st. and Hoyne avenue..... 1			1
N. W. cor...	Division and Shober streets..... 1			1
North side..	Division st., bet. Lincoln and Robey sts. ....	1		1
N. W. cor...	Division st. and Oakley avenue..... 1			1
N. W. cor...	Division and Davis streets..... 1			1
West side..	Dudley st., bet. Armitage av. & Clybourn pl. ....	1		1
S. W. cor...	Edgar st. and Wabansia avenue..... 1			1
West side..	Edgar st., bet. Wabansia and North aves. ....	1		1
North side..	Eighteenth st., 300 ft. E. of Wood st. .... 1			1
N. W. cor...	Eighteenth and Jefferson streets..... 1			1
S. E. cor...	Eighteenth and Union streets..... 1			1
North side..	Eleventh st., 315 ft. E. of Ashland av. .... 1			1
West side..	Elkgrove av., bet. Armitage av. & Hervey st. ....	1		1
East side...	Elston av., 370 ft. S. of Division st. .... 1			1
*West side..	Elston av., bet. Wade and Division sts. ....	1		1
West side..	Elston av., 300 ft., 600 ft., 920 ft. and 1,234 ft. N. of Snow street...	4		1
*N. E. cor...	Erie and Morgan streets..... 1			1
West side..	Fairfield av., bet. Hirsch & Thompson sts. ....	1		1
N. W. cor...	Fairfield av. and Thompson street..... 1			1

\*In place of single.

The following statement shows in detail the number, size and location of the hydrants added to the system during the year and the number in use in the city at the end of 1886.

## NORTH DIVISION.

LOCATION.	STREET.	Size of Hydr'ts			
		4-inch Double.	2½ inch Double.	2½-inch Single.	
S. W. cor.	Alley E. of Astor st., at Burton pl. ....			1	
N. E. cor.	C and Dominick sts. ....			1	
N. W. cor.	Eugenie and Hull sts. ....		1		
S. E. cor.	Fullerton and Sheffield aves. ....		1		
South side.	Fullerton bet. Sheffield av. and Fremont st.		1		
South side.	Fullerton av. bet. Orchard and Larrabee st.		1		
*N. W. cor.	Hurlbut and Eugenie sts. ....		1		
West side.	Hurlbut, bet. North ave. and Eugenie sts. ....		1		
N. W. cor.	Kingsbury and Superior sts. ....		1		
S. W. cor.	Larrabee st. and Kemper pl. ....		1		
N. E. cor.	Lewis st. and Hawthorne av. ....		1		
N. W. cor.	Lutz pl. and alley running north. ....			1	
*S. W. cor.	Market st. and Chicago ave. ....	1			
*N. W. cor.	Mohawk and Blackhawk sts. ....		1		
*West side.	Mohawk st., 600 feet S. of Blackhawk st. ....		1		
*West side.	Mohawk st., 350 feet N. of Clybourn ave. ....		1		
*West side.	Mohawk st., bet. Eugenie st. and North ave. ....		1		
*West side.	Mohawk st. bet. Eugenie and Menomonee st. ....		1		
*West side.	Mohawk, bet. Wisconsin and Menomonee st. ....		1		
*N. W. cor.	Mohawk and Menominee sts. ....		1		
*S. W. cor.	Mohawk and Wisconsin sts. ....		1		
S. E. cor.	Rees and Division sts. ....		1		
N. E. cor.	Rees and Dayton sts. ....		1		
N. E. cor.	Rees st. and Hawthorne ave. ....		1		
North side.	Rees st., 100 feet W. of Hawthorne ave. ....		1		
N. W. cor.	St. Clair and Erie sts. ....		1		
N. W. cor.	St. Clair and Huron sts. ....		1		
West side.	Sedgwick st. bet. Blackhawk and North ave. ....		1		
*N. W. cor.	Southport and Webster avs. ....		1		
North side.	Superior st., bet. Market and Sedgwick sts. ....	1			
*N. W. cor.	Superior st. and Sedgwick sts. ....		1		
*N. W. cor.	Superior and Townsend sts. ....		1		
*N. E. cor.	Superior and Kingsbury sts. ....	1			

\*In place of single.

## NORTH DIVISION.—CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	3½-inch Double.	3¼-inch Single.
North side.	Walton pl., bet Rush and Lake Shore Drive	.....	1	.....
N. W. cor..	Walton pl. and Lake Shore Drive	.....	1	.....
	Total in North Division	3	29	3
	Previously put in	126	295	448
	Total	129	324	451
	Less by hydrants taken out and replaced by others of different size	.....	.....	14
	Total in use in North Division	129	324	437

\*In place of single.

## SOUTH DIVISION.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2½-inch Single.
N. W. cor..	Aldine st. and Egan ave.....		1	1
West side..	Aldine st., 320 feet N. of Egan ave.....		1	1
S. E. cor..	Archer and Douglas aves.....		1	1
S. E. side..	Archer ave., 300 feet N. E. of Douglas ave..		1	1
S. W. cor..	Bonfield st. and C. & A. R. R.....		1	1
N. W. cor..	Cologne and Deering sts.....		1	1
North side..	Cologne st. 400 feet W. of Quarry st.....		1	1
N. E. cor..	Cottage Grove ave. and 23rd st.....		1	1
East side..	Cottage Grove ave., 200 feet S. of 23rd st....		1	1
East side..	Cottage Grove ave. 210 feet N. of 25th st....		1	1
S. E. cor..	Cottage Grove ave. and 24th st.....		1	1
East side..	Cottage Grove ave., 120 feet N. of 26th st....		1	1
East side..	Cottage Grove ave., 110 feet S. of 26th st....		1	1
S. E. cor..	Cottage Grove ave. and 27th st.....		1	1
S. E. cor..	Cottage Grove ave. and 28th st.....		1	1
S. E. cor..	Cottage Grove ave. and 29th st.....		1	1
West side..	Cottage Grove Ave. 300 feet S. of 33rd st....		1	1
N. W. cor..	Dashiel and 32nd sts.....		1	1
West side..	Dashiel st., 300 feet S. of 31st st.....		1	1
West side..	Deering at., 355 feet S. of Hickory st.....		1	1
North side..	Douglas ave., 310 feet W. of Laurel st.....		1	1
West side..	Ellis ave., 300 feet S. of Douglas ave.....		1	1
West side..	Ellis ave., 300 feet N. of 37th st.....		1	1
*S. W. cor..	Ellis and Douglas aves.....		1	1
West side..	Farrell st., 330 feet S. of Hickory st.....		1	1
West side..	Forest ave., 300 feet S. of 38th st.....		1	1
West side..	Grand Boulevard, 300 feet N. of 37th st....		1	1
West side..	Grand Boulevard, 600 feet N. of 37th st....		1	1
West side..	Grand Boulevard, 825 feet N. of 37th st....		1	1
S. W. side..	Haynes ct., 250 feet S. of Lyman st.....		1	1
S. E. cor..	Indiana ave. and 21st st.....		1	1
West side..	Joseph st., 330 feet S. of Hickory st.....		1	1
West side..	Lake Park ave., 350 feet S. of 29th st.....		1	1
West side..	Langley ave., bet. 38th st. and Egan ave.....		1	1
East side..	Langley ave., bet. 27th and 38th sts.....		1	1
S. W. cor..	La Salle and Spring sts.....		1	1
West side..	La Salle st., 300 feet S. of 33rd st.....		1	1
West side..	La Salle st., 600 feet S. of 33rd st.....		1	1
West side..	La Salle st., 900 feet S. of 33rd st.....		1	1
North side..	Lever st., 100 feet W. of Ashland Ave.....		1	1
North side..	Lever st., 180 feet E. of Ashland Ave.....		1	1
S. E. cor..	Lincoln & 38th sts.....		1	1
East side..	Lincoln st., 300 feet S. of 38th st.....		1	1
N. E. cor..	Lincoln st. and Egan Ave.....		1	1
West side..	Logan st., 330 feet S. of Hickory st.....		1	1

\*In place of single.

## SOUTH DIVISION.—CONTINU ED.

LOCATION.	STREET.	Size of Hydr'ts			
		4-inch Double.	2½-inch Double.	2½-inch Single.	
West side..	Long John st., 270 feet S. of Douglas st.....			1	
S. E. cor...	Lundy and 36th st.....	1			
West side..	Lundy st., 300 feet S. of 36th st.....			1	
West side..	Mary st., 357 feet N. of Archer ave.....			1	
West side..	Muspratt st., 300 feet S. of Springer ave.....	1			
West side..	Paulina st., 300 feet S. of 37th st.....	1			
N. W. cor...	Paulina and 38th sts.....	1			
S. W. side..	Pitney ct., bet. 31st st. and Archer ave.....	1			
West side..	Quarry st., 300 feet S. of Cologne st.....	1			
West side..	Salt st., 300 feet N. of Archer ave.....			1	
N. E. cor...	Sanger and 25th sts.....	1			
S. W. cor...	Selma and Lyman sts.....			1	
West side..	Selma st., 519 feet N. of Lyman st.....			1	
N. W. cor...	Shields ave and 37th ct.....			1	
N. W. cor...	Shields ave. and 38th st.....			1	
North side..	Springer ave., 300 feet W. of Laurel st.....			1	
N. E. cor...	St. W. of Canal Pumping W'ks & Lever st.....			1	
North side..	Thirty-third ct., 193 feet W. of Ashland ave.....			1	
N. E. cor...	Thirty-third st. and Graves pl.....	1			
North side..	Thirty-fourth st., 300 feet W. of Beers st.....	1			
N. E. cor...	Thirty-fifth ct. and Gage st.....	1			
N. E. cor...	Thirty-seventh st. and Archer ave.....	1			
North side..	Thirty-seventh st., 280 feet E. of Archer av.....			1	
North side..	Thirty-seventh st., 550 feet E. of Archer av.....			1	
N. E. cor...	Twenty-fifth st., and Cottage Grove ave.....	1			
West side..	Vernon ave., 270 feet S. of 29th st.....	1			
West side..	Vernon ave., 270 feet N. of 30th st.....	1			
East side..	Wabash ave., 300 feet S. of 12th st.....	1			
West side..	Wabash ave., 300 feet S. of 13th st.....	1			
West side..	Wabash ave., 224 feet S. of 14th st.....	1			
West side..	Wabash ave., 620 feet S. of 14th st.....	1			
West side..	Wall st., 300 feet S. of Springer ave.....	1			
West side..	Wallace st., 300 feet N. of Douglas ave.....	1			
West side..	Wallace st., 625 feet N. of Douglass ave.....	1			
West side..	Wallace st., 956 feet N. of Douglas ave.....	1			
West side..	Wentworth ave., 317 feet N. of Douglas ave.....	1			
West side..	Wentworth ave., 650 feet N. of Douglas ave.....	1			
West side..	Wentworth ave., 950 feet N. of Douglas ave.....	1			
S. W. cor...	Wentworth ave. and 23rd st.....	1			
East side..	Wentworth ave. 315 feet S. of Douglas ave.....	1			
West side..	Wentworth ave., 312 feet N. of 37th st.....	1			

\*In place of single.

## WEST DIVISION.- CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2¼-inch Single.
West side..	Fairfield av., bet. Thompson st. & North av	1		
N. W. cor..	Fifteenth and Rockwell streets.....	1		
North side.	Fillmore st., 320 ft. W. of Campbell av.....	1		
North side.	Flourney st., 300 ft. E. of Washtenaw av....		1	
North side.	Flourney st., 324 ft. W. of California av.....	1		
N. E. cor..	Flourney and Francisco streets.....	1		
N. W. cor..	Fourteenth and Lincoln streets.....	1		
North side.	Fourteenth st., bet. Robey and Lincoln sts..	1		
North side.	Fourteenth st., 300 ft. W. of Robey st.....		1	
N. E. cor..	Fourteenth st. and Hoyne avenue.....	1		
N. E. cor..	Fullerton and Western avenues.....	1		
North side.	Fullerton av. 300 ft. E. of Western av.....	1		
N. W. cor..	Girard st. and Bloomingdale road.....	1		
West side..	Girard st., bet. Armitage av. & Clybourn pl..	1		
West side..	Girard st. bet. Bloomingdale rd & Wabansia av	1		
†N. E. co. r	Halsted and Fifteenth streets.....	1		
S. E. cor..	Halsted and Meagher streets.....	1		
N. W. cor..	Hamburg and Breslau streets.....	1		
N. W. cor..	Hamburg and Leipsic streets.....	1		
S. W. cor..	Hamlin av. and Kinzie street.....	1		
S. W. cor..	Hamlin av. and Fulton street.....	1		
N. W. cor..	Hamlin av. and Lake street.....	1		
West side..	Hamlin av., bet. Kinzie and Indiana st.....	1		
N. W. cor..	Hamlin av. and Indiana street.....	1		
North side.	Harrison st., 300 ft. W. of Kedzie av.....		1	
N. E. cor..	Harrison and Francisco street.....	1		
North side.	Harrison st., 300 ft. W. of California av.....		1	
N. W. cor..	Harrison and Sacramento streets.....	1		
North side.	Harrison st., 300 ft. W. of Sacramento street		1	
N. W. cor..	Harrison st. and Albany avenue.....	1		
North side.	Harrison st., 300 ft. W. of Albany avenue....		1	
N. E. cor..	Harrison st. and Kedzie avenue.....	1		
North side.	Hastings st., 300 ft. W. of Hoyne avenue....		1	
N. E. cor..	Hastings and Leavitt streets.....	1		
North side.	Hastings st., 300 ft. W. of Wood st.....		1	
North side.	Hastings st., 274 ft. E. of Ashland av.....		1	
N. W. cor..	Hervey and Wood streets.....		1	
N. W. cor..	Hirsch st. and Western avenue.....	1		
N. W. cor..	Hirsch st. and Fairfield avenue.....	1		
N. E. cor..	Hirsch st. and California avenue.....	1		
N. W. cor..	Homan av. and Twenty-first street.....	1		
West side..	Homan av., 300 ft. N. of 21st street.....		1	
S. W. cor..	Homan av. and Nineteenth street.....	1		
S. W. cor..	Homan av. and Madison street.....	1		
North side.	Homer st., bet. Leavitt st. and Hoyne av....	1		
N. E. cor..	Hoyne av. and Crystal street.....	1		

†In place of 4-inch.

## WEST DIVISION.—CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts			
		4-inch Double.	2½-inch Double.	2½-inch Single.	
West side..	Hoyne ave., 140 feet N. of Petersen st.....			1	....
N. W. cor..	Hoyne ave. and Churchill st.....			1	....
North side..	Huron st. bet. Hoyne ave. and Leavitt st....			1	....
N. E. cor..	Huron st. and Oakley ave.....			1	....
North side..	Huron st., 300 feet E. of Oakley ave.....			1	....
North side..	Huron st., 300 feet W. of Wood st.....			1	....
North side..	Huron st., bet. Ashland ave. and Paulina st....			1	....
North side..	Huron st., bet. Wood and Paulina sts.....			1	....
*North side..	Huron st., bet. Lincoln and Wood sts.....			1	....
North side..	Huron st. bet. Lincoln and Robey sts.....			1	....
North side..	Huron st., bet. Hoyne ave. and Robey st....			1	....
*N. W. cor..	Huron st. and Hoyne ave.....			1	....
West side..	Idaho st., bet. Polk and Flourney sts.....			1	....
*N. W. cor..	Indiana and Green sts.....			1	....
N. W. cor..	Indiana st. and Avers ave.....			1	....
N. W. cor..	Indiana st. and Springfield ave.....			1	....
N. W. cor..	Indiana st. and Harding aves.....			1	....
West side..	Kedzie ave., 300 feet S. of 21st st.....			1	....
N. W. cor..	Kedzie ave. and 21st st.....			1	....
West side..	Kedzie ave., 300 feet S. of 19th st.....			1	....
N. W. cor..	Kedzie ave. and 19th st.....			1	....
West side..	Kedzie ave., 140 feet N. of Van Buren st...			1	....
North side..	Lake st., at Clarkson ct.....			1	....
North side..	Lake st., at the bridge.....			1	....
N. W. cor..	Lake st. and California ave.....			1	....
West side..	Law ave., 400 feet N. of Harrison st.....			1	....
West side..	Laundale ave., 300 feet S. of 25th st.....			1	....
N. W. cor..	Laundale ave. and 26th st.....			1	....
West side..	Leavitt st., 239 N. of 18th st.....			1	....
N. W. cor..	Leavitt and Frankfort sts.....			1	....
N. W. cor..	Leavitt and Hamburg sts.....			1	....
S. W. cor..	Leavitt and Ems st.....			1	....
N. W. cor..	Leavitt and Bremen st.....			1	....
N. W. cor..	Leavitt and Rhine sts.....			1	....
N. W. cor..	Leavitt st. and Fullerton ave.....			1	....
N. W. cor..	Leavitt and Berlin sts.....			1	....
North side..	Lexington st., 260 feet E. of Leavitt st....			1	....
North side..	Lexington st., 300 feet W. of California ave...			1	....
N. W. cor..	Liacoin and 12th st.....			1	....
North side..	Lubeck st., bet. Hoyne ave and Leavitt st....			1	....
N. W. cor..	Lubeck st. and Hoyne ave.....			1	....
North side..	Lubeck st., bet. Robey st. and Hoyne ave....			1	....
N. W. cor..	Lubeck and Robey sts.....			1	....
*N. E. cor..	McReynolds and Wood sts.....			1	....
N. W. cor..	Madison and Francisco sts.....			1	....
North side..	Madison st., 300 feet West of Francisco st....			1	....

\*In place of single.

## WEST DIVISION.—CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2½-inch Single.
N. W. cor..	Madison st. and Albany ave.....		1	
North side.	Madison st., bet. Albany and Kedzie aves....		1	
N. W. cor..	Madison st. and Kedzie ave.....		1	
North side.	Madison st., 300, 600 and 900 feet W. of Kedzie ave.....		3	
North side.	Madison st., 300, 600 and 1,000 feet W. of Roman av.....		3	
West side..	Millard ave., 300 feet S. of 25th st.....			1
North side.	Monroe st., 427 feet W. of Albany ave.....			1
North side.	Monroe st., bet. Loomis and Throop sts.....		1	
North side.	Monroe st., 320 feet E. of California ave.....		1	
North side.	Monroe st., 640 feet E. of California ave.....		1	
West side..	Morgan st., bet. Lake and Fulton sts.....		1	
North side.	Nineteenth st., bet. Throop and Loomis sts.....		1	
North side.	North ave., bet. Hoyne ave. and Leavitt st.....		1	
West side..	Norton st., 393 feet S. of Polk st.....			1
S. W. cor..	Oakley ave. and Hamburg st.....		1	
N. W. cor..	Oakley ave. and Erie st.....		1	
N. W. cor..	Oakley ave. and Ambrose st.....		1	
North side.	Ohio st., bet. Elizabeth st. and Center ave.....		1	
South side..	Oliver ct., 143 feet W. of Walker ct.....			1
N. E. cor..	Park and California aves.....		1	
North side.	Park ave., 300 feet E. of Homan ave.....		1	
North side.	Park ave., 650 feet E. of Homan ave.....		1	
North side.	Parmelee, 300 feet W. of Hoyne ave.....			1
N. W. cor..	Parmelee st. and Oakley ave.....		1	
North side.	Parmelee st., 310 feet W. of Oakley ave.....			1
West side..	Paulina st., 300 feet S. of Taylor st.....			1
West side..	Paulina st., bet. North and Waubansia aves.....		1	
*N. W. cor..	Paulina and Clarinda sts.....		1	
*N. W. cor..	Paulina and Cornelia sts.....		1	
*N. W. cor..	Paulina and Emily sts.....		1	
West side..	Paulina st., bet. Indiana and Ohio sts.....		1	
West side..	Paulina st., 300 feet N. of Taylor st.....			1
North side.	Polk st., 244 feet E. of Morgan st.....		1	
North side.	Polk st., 290 feet W. of Wood st.....		1	
N. E. cor..	Polk and Robey sts.....			1
S. W. cor..	Raleigh ct. and 13th street.....			1
West side..	Raleigh ct. 391 feet S. of 13th st.....			1
S. W. cor..	Richmond and Division sts.....		1	
N. W. cor..	Richmond and Linwood sts.....		1	
West side..	Richmond st., bet. Division and Thomas sts.....		1	
S. W. cor..	Richmond and Thomas sts.....		1	
S. W. cor..	Richmond and Cortez sts.....		1	
N. W. cor..	Richmond and Augusta sts.....		1	
N. W. cor..	Robey and Jane sts.....		1	
N. W. cor..	Robey and Huron sts.....		1	
N. W. cor..	Robey and Thomas sts.....		1	

\*In place of single.

## WEST DIVISION.—CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2½-inch Single.
N. W. cor..	Robey and Augusta streets.....		1	....
West side..	Robey st., bet. Augusta and Thomas sts.....		1	....
*West side.	Robey st., 268 ft. N. of Iowa street.....		1	....
West side..	Robey st. 1077 ft. & 1427 ft. S. of Blue Island av.....		2	....
West side..	Rockwell st., S. of Fulton street.....			1
S. W. cor..	Rockwell st. and North avenue.....		1	....
West side..	Rockwell st., 300 ft. S. of North av.....			1
S. W. cor..	St. Louis and Ogden avenues.....		1	....
West side..	St. Louis av., 300 ft. S. of Ogden avenue.....			1
N. W. cor..	St. Louis av. and Twenty-first street.....		1	....
West side..	St. Louis av., 300 ft. S. of 21st street.....			1
West side..	Sacramento av., 375 ft. N. of 26th street.....			1
*West side.	Sangamon st., N. of Front street.....		1	....
West side..	Sawyer av., 325 ft. S. Ogden avenue.....			1
S. W. cor..	Sawyer av. and 19th street.....		1	....
West side..	Sawyer av., 300 ft. S. of 19th street.....			1
*N. W. cor..	Sebor and Clinton streets.....		1	....
S. W. cor..	Shober and Thompson streets.....		1	....
East side..	Snow st., 350 ft. W. of Elston avenue.....		1	....
S. E. cor..	Snow st. and C. & N. W. R. R.....		1	....
West side..	Spaulding av., 248 ft. S. of 21st street.....			1
S. W. cor..	Spaulding av. and 21st street.....			1
S. W. cor..	Spaulding av. and 19th street.....		1	....
West side..	St. W. of Western av., 319 ft. S. of Coulter st.....			1
N. E. cor..	Superior st. and Washtenaw avenue.....		1	....
North side.	Superior st., bet. Rockwell st. & Washtenaw av.....		1	....
North side.	Taylor st., bet. Lincoln and Robey streets.....			1
North side.	Thirteenth st., 300 ft. W. of Lincoln st.....		1	....
N. W. cor..	Throop and Nebraska streets.....		1	....
North side.	Tremont st., 275 ft. W. of Kedzie av.....		1	....
S. W. cor..	Turner av. and 21st street.....			1
West side..	Turner av., 225 ft. S. of 21st street.....			1
North side.	Twelfth st., 300 ft. W. of Western av.....			1
N. E. cor..	Twelfth st. and Campbell avenue.....		1	....
South side.	Twelfth st., bet. Leavitt st and Oakley av.....			1
North side.	Twentieth st., 300 ft. W. of Throop st.....		1	....
North side.	Twenty-first st., bet. Lincoln and Wood sts.....		1	....
South side.	Twenty-first st., bet. Lincoln and Robey sts.....		1	....
North side.	Twenty-first st., bet. Hoyne av. & Robey st.....		1	....
North side.	Twenty-first st., bet. Hoyne av. & Leavitt st.....		1	....
North side.	Twenty-first st., bet. Oakley av. & Leavitt st.....		1	....
N. W. cor..	Twenty-second st. and Dale place.....		1	....
N. E. cor..	Twenty-second st. and Central Park av.....			1
N. E. cor..	Twenty-fourth st. and Bonney av.....			1
N. E. cor..	Twenty-sixth and Sacramento streets.....			1
N. E. cor..	Twenty-sixth st. and Bonney avenue.....			1

\*In place of single.

## WEST DIVISION.—CONTINUED.

LOCATION.	STREET.	Size of Hydr'ts		
		4-inch Double.	2½-inch Double.	2½-inch Single.
N. E. cor..	Upton st. and Western ave.....		1	
N. E. cor..	Van Buren st. and Kedzie ave.....		1	
S. E. cor..	Van Buren and Troy sts .....			1
North side.	Van Buren st., bet. Western & Campbel av.....	1		
West side..	Wallack pl., 210 feet N. of 18th st.....			1
N. W. cor..	Walnut st. and Kedzie ave.....		1	
North side.	Walnut st., 300 feet W. of Kedzie ave.....	1		
N. E. cor..	Warren and Kedzie aves.....		1	
North side.	Warren ave., bet. Kedzie and Albany aves.....		1	
North side.	Warren ave., 300, 600 & 900 ft. W. of Kedzie.....		3	
N. E. cor..	Warren and Homan aves.....		1	
S. W. cor..	Washtenaw ave. and Harrison st .....		1	
S. W. cor..	Washtenaw ave. aud Flournoy st .....		1	
N. W. cor..	Washtenaw ave. and Lexington st.....		1	
S. E. cor..	Western ave. and Moore st.....	1		
N. E. cor..	Western ave. and Hamburg st.....		1	
N. E. cor..	Western ave. and Bremen st .....		1	
N. E. cor..	Western ave. and Rhine st.....		1	
N. E. cor..	Western ave. and Berlin st.....		1	
N. E. cor..	Western ave. and Ems st.....		1	
North side.	Wilcox ave., bet. Campbell and Western av.....		1	
S. W. cor..	Willis ct. and 13th st.....			1
West side..	Willis ct., 400 feet S. of 13th st .....			1
N. W. cor..	Wilson st. and Stewart ave.....			1
*S. E. cor..	Wood and Julian sts.....		1	
S. W. cor..	Wood and Ambrose sts.....		1	
*N. W. cor.	Wright and Halsted sts.....		1	
N. E. cor..	Yeaton and Lincoln sts.....		1	
Total in West Division.....		1	234	79
Previously put in.....		227	1202	1215
Total.....		228	1436	1294
Less by hydrants taken out and replaced by others of different size.....		1		15
Total in use in West Division.....		227	1436	1279

\*In place of single.

## RECAPITULATION.

## HYDRANTS TAKEN OUT DURING 1886.

DIVISION.	4" Double	2½" Double	2½" Single	TOTAL.
North.....	0	0	14	14
South.....	0	0	1	1
West.....	1	0	15	16
Total.....	1	0	30	31

## HYDRANTS PLACED DURING 1886.

DIVISION.	4" Double	2½" Double	2½" Single	TOTAL
North.....	3	29	3	35
South.....	0	50	39	89
West.....	1	234	79	314
Total.....	4	313	121	438
Net increase in 1886. }	3	313	91	407

## TOTAL NUMBER OF HYDRANTS IN USE IN THE CITY.

DIVISION.	4" Double	2½" Double	2½" Single.	TOTAL.
North.....	129	324	437	890
South.....	188	651	679	1518
West.....	227	1436	1279	2942
Total.....	544	2411	2395	5350

## TRAFFIC TUNNELS.

The La Salle Street Tunnel is in good order, the pavement will require renewal the coming season. Washington Street Tunnel will also require new pavement, and extensive repairs should be made on the north wall of the roadway under the river which is in a bad state, nothing has been done to stop the percolation of water through the roof which renders this passage so disagreeable.

## RIVER AND DREDGING.

The level of the water in the lake has continued at a high stage during the past season, and very little dredging has been required for the purpose of navigation. This level is now receding and during the next two or three years will be on the downward course, rendering extensive dredging necessary to maintain a suitable depth of water in the channel for the passage of vessels of deep draught.

The following table shows the level of water in the river above city datum, or low water mark during the past year.

## HEIGHT OF WATER IN LAKE MICHIGAN, 1886.

From Records taken at Crib.

MONTH.	Mean.	Highest.	Lowest.	No. of days above Mean
January .....	2.27	3.61	1.21	17
February. ....	2.30	3.41	0.01	10
March .....	2.57	4.41	1.61	13
April.....	2.94	3.91	2.41	14
May .....	3.24	3.71	2.71	16
June.....	3.22	3.71	2.81	13
July .....	3.12	3.61	2.71	17
August.....	2.82	3.31	2.51	18
September. ....	2.60	3.21	2.01	16
October.....	2.54	3.01	2.11	12
November .....	2.18	3.01	1.31	16
December .....	1.88	3.01	1.01	16
Average.....	2.64	.....	.....	.....

## HEIGHT OF WATER IN CHICAGO RIVER, 1886.

From Record taken at Pipe Yard.

MONTH.	Mean.	Highest.	Lowest.	No. of days above Mean
January.....	2.76	3.90	2.00	11
February.....	2.71	3.50	1.90	11
March .....	2.94	3.60	2.20	12
April.....	3.26	4.10	2.80	10
May.....	3.58	4.20	3.20	12
June.....	3.57	3.90	3.20	13
July.....	3.48	4.20	3.00	9
August.....	3.30	3.60	2.90	14
September.....	2.93	3.30	2.20	13
October....	2.93	3.60	2.10	12
November .....	2.50	3.40	1.80	11
December.....	2.28	3.70	1.30	15
Average .....	3.02	.....	.....	.....

## BRIDGES AND VIADUCTS.

The great traffic over these structures renders the cost of maintainance and renewals very great and a number of the old ones are worn out and unsafe to carry the loads which they are now subjected to, three of the worst, viz: State and Eighteenth Street Bridges and Indiana Street Viaduct will probably be replaced with new structures during the coming season and others will have to be renewed in the near future. All the bridges and viaducts have been maintained in a safe condition for travel, and ordinary repairs and removals of flooring and planking and of the piling and protection of river bridges made whenever needed, more than ordinary repairs were made on the following structure, viz:

## RUSH STREET BRIDGE.

The cast iron track which was unsuitable for this heavy bridge was replaced with steel tracks and a new set of wheels and gearing was put in place.

## ADAMS STREET.

New steel track was put under Turntable.

## VAN BUREN STREET.

New coping was put on centre pier, the south half of protection rebuilt and fender piles driven and bridge repainted.

## HARRISON STREET.

Received new floor and sidewalk and the wood tressel approaches on both sides of river rebuilt.

## TWENTY SECOND STREET.

Extensive repairs were made on both bridge and the wooden approaches.

## MAIN STREET BRIDGE.

Was rebuilt entire, the iron chords and turntable being all that is left of old structure.

## INDIANA STREET BRIDGE.

The protection was rebuilt with new piles, timbers, etc.

## CHICAGO AVENUE BRIDGE.

New protection was built and timber caps and planking over approaches were renewed.

## WEST DIVISION STREET BRIDGE.

This bridge has been rebuilt, iron chords and turntable being all that is left of old structure. The protection and fender clumps were also completely renewed.

## BLUE ISLAND AVE. AND THROOP STREET.

Viaduct has received new floor and planking. All iron work when renewals were made was cleaned and painted; the lower chords with red lead and oil which is deemed best in this position.

## TWELFTH STREET VIADUCT AND BRIDGE.

This is one of the most extensive structures built by the City and when completed will afford safe passage for traffic from the South to the West side over the great number of railroad tracks at this point. On the east side of the river the viaduct spans the C. R. I. & P. and L. S. & M. S. Railroads with three truss spans, one of 113'-8" and two of 114'-1", and the east approach from the end of these spans to the east line of Clark street is supported on heavy wrought iron columns and a roadway built on the level of the tracks to afford access to the numerous freight depots in this vicinity. The approaches to the viaduct are built on Clark street, north and south from Twelfth, with an inclination or rise of one foot in forty. Westward from the railroad tracks to the river the roadway is built on wooden trussels, as it is anticipated that the railroads will cross the street here sometime in the future, and it was not deemed best to build a permanent iron structure until it can be determined what arrangement of spans etc., will be required.

The river swing bridge is of steel, being the first

bridge of this material built by the city. It is 220 feet long by 59 feet wide and similar in design to the Rush and Lake street bridges. Westward the structure crosses the tracks and grounds of the C. & G. W. railroad with one plate girder span of  $58\frac{1}{2}$  feet long, one truss span 72 feet long, one truss span 108 feet long, and one truss span 125 feet long. There will also be an approach from the south side of Twelfth street near the bridge to Lumber street. The first 300 feet of this approach is of plate girders divided into spans of fifty feet each and continued from the end of these to street grade with the usual walling and filling. This approach is 40 feet wide. All other parts of this work are 58 feet wide, divided into two roadways 21 feet wide for teams, and two sidewalks each 8 feet wide.

The work will be completed and open for travel early the coming season. The Chicago & Great Western Railway Company pay for the whole of the work on the west side of the river; also the cost of the center pier for the river span.

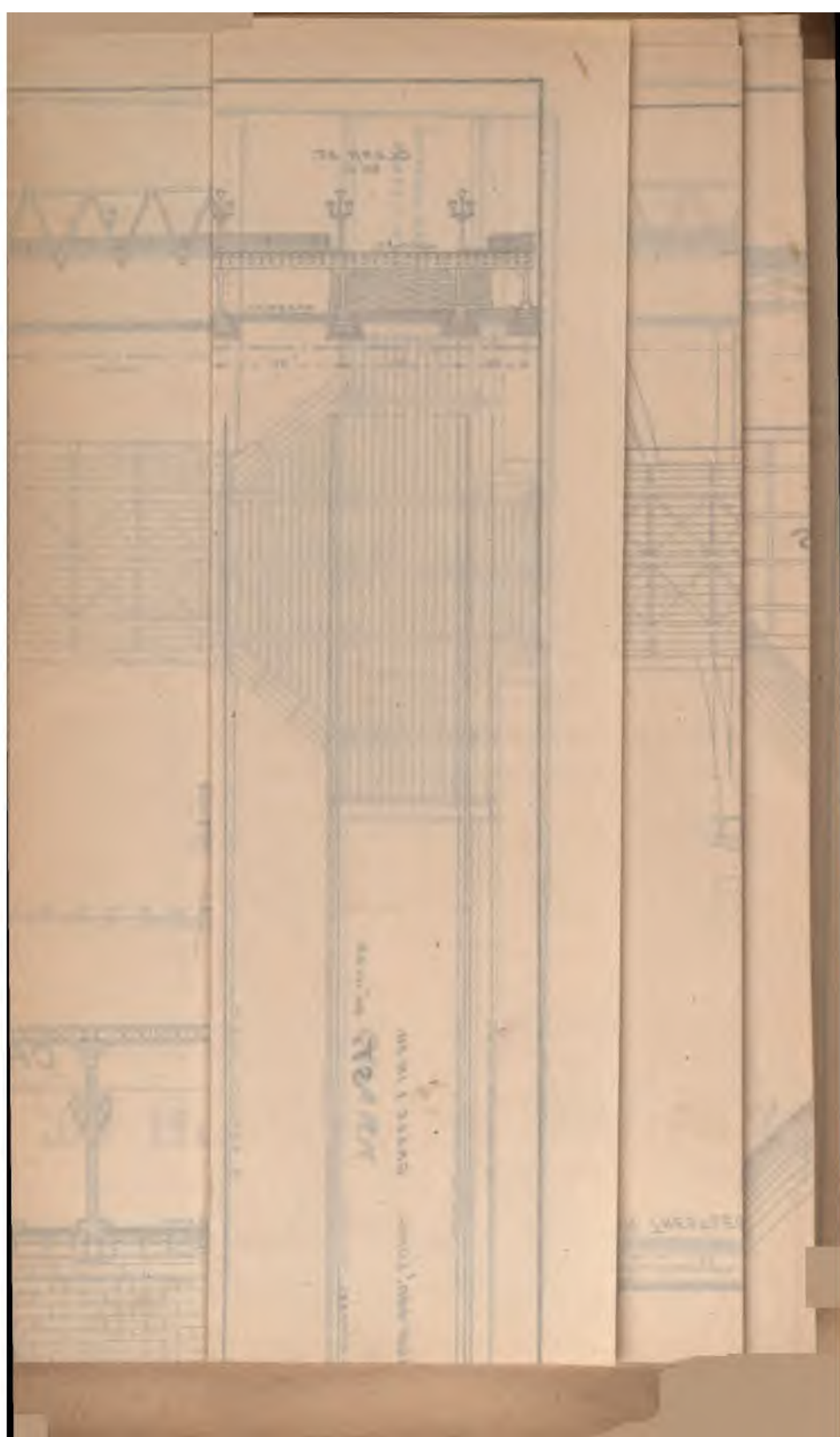
The L. S. & M. S. and C. R. I. & P. railroads pay the costs of three spans over their tracks, the rest of the work being paid for by the city.

The work being incomplete a close approximate estimate can only be made which is as follows:



HOLLEN

24



<i>Cost of approaches on Clark street</i> .....		\$ 33,715 75
<i>Iron Spans east of railroad tracks—</i>		
Foundations .....	\$ 1,862 85	
Superstructure .....	26,200 00	
	<hr/>	28,062 85
<i>Three Spans over L. S. &amp; M. S. and C. R. I. &amp; P. Railroads—</i>		
Foundations .....	11,743 08	
Superstructure .....	44,600 00	
	<hr/>	56,343 08
<i>Tressle Work</i> .....		11,000 00
<i>River Bridge—</i>		
Foundation & protection.	59,850 53	
Swing bridge .....	41,159 00	
	<hr/>	101,009 53
<i>West Twelfth Street Viaduct—</i>		
Lowering sewer .....	6,354 71	
Foundation and approaches .....	25,199 47	
Superstructure .....	48,100 00	
	<hr/>	79,654 18
<i>Lumber Street Approach—</i>		
Foundation and approach	7,660 00	
Superstructure .....	23,900 00	
	<hr/>	31,560 00
		<hr/>
		\$ 341,345 39

Lake Street Swing Bridge was completed and open for travel the 1st of June, 1886. It is 220 feet long and 59 feet wide; divided into two roadways each 21 feet wide, and two sidewalks  $8\frac{1}{2}$  feet each.

The cost was—

Foundation, piers, protection and approaches .....	\$ 78,945 10
Bridge and end spans.....	62,649 68
	<hr/>
	\$141,594 78

#### LAKE STREET VIADUCT.

This viaduct was built at the expense of the Chicago & Evanston Railway and cost—

For foundation.....	\$12,880 70
For superstructure.....	26,127 14
	<hr/>
	\$39,007 84

The structure has three trusses; the north being 101 feet, the middle 109 feet and the south 117 feet long. It is divided into two roadways, each 23 feet wide from center to center of trusses, and two sidewalks, each six feet wide, the whole width of the structure being 58 feet.

There is in this span 392,000 pounds of wrought iron; 142,000 pounds of steel in floor plates; 125 cu-yards of concrete in floor; 465 square yards block pavement; and 15,000 feet B. M. of lumber in sidewalks.

To provide for the tracks of the C. & G. W. railroad changes and extensions have been made at Blue Island avenue, Center avenue, South Halsted street and Canal street viaducts, the expense, \$85,987 57, being paid for by the railroad company.

### QUALITY OF WATER.

Many of our citizens have an impression that the whole of the contamination of our water supply is caused by the foul waters of the river mingling with those of the lake and being carried out by wind or currents to the intake at the crib. This is rarely the case (except during freshets) the flow of the river is from the lake to the canal, a current being maintained in this direction by the Canal Pumping Works; and even after heavy local rains, while the current of the river is toward the ~~lake~~ for a short time, (rarely exceeding 24 hours), the liability of contamination at the crib is very remote, for while the currents in the lake are slight and irregular and seen almost invariably to follow the shore line either north or south, the discharge from the river cannot be detected far eastward. At such times the river waters are purified on or near the shore by dilution and exposure to oxygen of the air which is very active here on account of the waves breaking in shoal water and continually exposing the waters to the purifying action of the air.

After rains which are generally over the watershed of the Chicago and Desplaines rivers, or from snow quickly melting over the same, and which the volume of water discharged into the lake is very great, and the river water can be followed by its color often toward the crib, and occasionally during the heaviest freshet in close proximity thereto. Although these unfavorable conditions are rare, not to exceed a few days each year, they cannot be avoided by the Department with means at its command at the present time, and we can only warn the people to be cautious in the use of water at such times. There is another cause, although free from the influence of the river, when the lake water loses its usual clear, blue, transparent and bright appearance. This is due to storms of greater or less severity and duration, when the water becomes turbid along the shore and after continued heavy storms for many miles eastward of the crib. For about three months in the winter and at intervals during the fall and spring this turbid condition is common and is the cause of great complaint at such times. The storms disturb the mud and sand from the shore and bottom of the lake and carry them in suspension for great distances. The silts in the pump wells is similar in constitution to the clay banks north of Grosse Point and is probably the shore washing from north of this point. It doubtless, in addition to the mineral matter, contains more or less animal and

vegetable life; at certain seasons also, small fish or minnows swarm around and in the wells at the crib, and are drawn through the screens into the water supply. During the winter months, when it is impossible to keep the screens over the inlets on account of danger of stoppage by ice, large fish and water lizards enter the mains. This organic matter, after entering the pipes, is decomposed, and at the dead end of the mains, particularly, the water contains a large amount of mud with many minute living organisms, which live and breathe when the water is quiet. During the period of turbid water in the lake, at which time there is also much complaint from the citizens, the only relief we can afford is to "blow" the fire hydrants during the night time. At such times a large force is often employed on this duty and has to be continued until after the waters around the crib resume their normal condition.

#### EXTENSION OF THE NORTH PUMPING WORKS.

The additions to these works are well advanced and will be completed and in operation before the warm weather next season. The engines are built by the Holly Manufacturing Company, of Lockport, New York, and will add to the capacity of the work 24,000,000 gallons per day. The building, foundations and appurtenances have been built by day work by the City.

## LAKE TUNNELS.

The lake tunnels are in good condition but the limit of their capacity is reached with additional engines now near completion. At the north works it is not possible to make any further extensions of the Water Works plant without building new tunnels.

## SHORE INLET.

The shore inlet having become useless by decay and accretions on shore, a new tunnel 7.1 feet diameter, extending 1,500 feet from the shore shaft into the lake has been built and connected with the old tunnels. It is the intention to draw the water from this tunnel only when the supply is endangered by ice or otherwise at the Lake Crib.

CHICAGO, December 31, 1886.

SAMUEL G. ARTINGSTALL, Esq.,

*City Engineer.*

DEAR SIR: I herewith present report of the number of Water Meters in use on the 31st of December, 1885. Also the number added, removed and purchased during the year 1886.

Also the number of Hydraulic Elevators, together with the amount of revenue collected during the year 1886 for water measured by Meters and used by Hydraulic Elevators.

Respectfully Submitted,

GODFREY J. BAKER,

*Supt. Meters.*

## WATER METERS.

SIZE OF METERS.	8"	4"	1"	1½"	2"	3"	4"	6"	Total.
Number in use December 31st, 1885.....	649	212	964	423	336	308	4	1	2,897
Number added in 1886.....	38	22	50	71	51	28	8	0	203
Whole number.....	687	234	1014	494	387	336	7	1	3,100
Number removed during 1886.....	21	7	25	11	6	5	0	0	75
Number in use December 31st, 1886.....	666	227	989	483	381	331	7	1	3,085
Meters owned by City.....	320	47	576	141	90	158	1	0	1,353
Meters owned by private parties.....	346	180	413	342	291	173	6	1	1,752
Total in use.....	666	227	989	483	381	331	7	1	3,085
Number purchased from manufacturer.....	14	9	27	71	57	21	6	0	205
Number purchased from private parties.....	8	7	12	6	3	0	0	0	36
Total.....	22	16	39	77	60	21	6	0	241
Number on hand December 31st, 1886.....	29	8	9	14	12	9	8	0	84

## HYDRAULIC ELEVATORS.

Number in use December 31st, 1885.....	477
Number added during the year 1886.....	28
Number in use December 31st, 1886.....	505

Revenue collected during the year 1886 for water measured by meters and used by hydraulic elevators amounts to \$475,781.04, being an increase of \$19,918.75 over the amount collected from same sources during the year 1885.

## FULLERTON AVENUE PUMPING WORKS.

These Works have, during the entire year, discharged from the lake into the North Branch; and with the exception of one month, when they were shut down for the purpose of overhauling the machinery, have been in continuous operation.

The following table shows the operation of these works during the year:

STATEMENT OF THE OPERATION OF THE PUMPS AT THE FULLERTON AVENUE CONDUIT  
FOR THE YEAR 1886.

MONTHS.	Number Hours run per Month	Revolutions per Month.	Average Num- ber Revolutions per Minute.	Average Head of Water against Pumps.	Numbr of Cubic Feet of Water Pumped into the River.	Numbr of Cubic Feet of Water Pumped into the Lake.	Average Num- ber of Cubic Feet of Water Pumped per Minute.	Pounds of Coal consumed per Month for Pumping.	Duty per 100 lbs.	REMARKS.
January.....	H. M. 716:30	3,086,099	72.44	2.92	666,661,830	None.	15,505	492,800	24,688.073	
February.....	589:10	2,568,214	73.57	2.86	535,264,160	"	15,300	413,000	20,745.391	
March.....	469:45	2,099,087	74.60	2.87	432,143,020	"	15,327	335,000	23,097.632	Shut down March 21st, to overhaul Ma- chinery.
April.....	297:30	887,459	70.51	2.55	202,824,400	"	14,468	137,600	23,492.113	Started pumps April 21st.
May.....	705:00	3,138,413	74.51	2.80	640,165,085	"	15,160	481,000	23,870.072	
June.....	637:00	3,029,321	75.05	2.85	618,403,145	"	15,295	462,800	23,620.188	
July.....	721:45	3,245,105	74.94	2.85	660,757,095	"	15,295	503,725	23,159.186	
August.....	718:00	3,220,837	74.75	2.82	635,011,540	"	15,214	508,000	22,618.247	
September....	676:00	3,034,894	74.83	2.82	616,576,700	"	15,214	466,700	23,422.910	
October.....	715:45	3,211,335	74.85	2.83	654,613,480	"	15,241	520,200	22,415.037	
November....	687:00	3,090,244	74.76	2.82	630,401,265	"	15,214	508,800	20,102.243	
December....	717:00	3,151,935	75.14	2.90	664,102,045	"	15,248	520,900	23,107.793	
Totals.....	7,551:25	33,792,943	.....	.....	6,977,015,025	.....	.....	5,351,725	.....	
Average.....	.....	.....	74.08	2.824	.....	.....	15,238.41	.....	.....	

## CANAL PUMPING WORKS.

During the year three of the engines have been in constant operation for 297 days with the lock gates in the canal closed.

The remaining 68 days the engines were stopped: 39 days on account of freshets and 29 days for testing the engines and making preparations therefor.

New wheels were placed in different pumps as follows:

At Engine No. 4, February 12th.

At Engine No. 2, August 20th.

At Engine No. 3, September 6th.

At Engine No. 1, October 9th.

In December the necessary changes having been made in all the pumps, the machinery was again tested by a commission of engineers and reported to be fully up to the contract in every respect.

For full statement of test see Commissioner's Report.

## OPERATIONS OF ENGINES AT CANAL PUMPING WORKS.

MONTH.	Number of hours run per month.				Average number of revolutions per minute.	Average height of water in canal at Engine Building, in feet.	Average height of water in lock, in feet.	Average height of water in the river, in feet.	Average head of water pumped against, in feet.	Average number of cubic ft. of water pumped per min.	Pounds of coal consumed per month.	REMARKS.
	Engine No. 1.	Engine No. 2.	Engine No. 3.	Engine No. 4.								
January.....	744	733	648	.....	87.00	5.87	5.57	2.44	3.43	38,000	1,718,230	Engine No. 3 stopped on the 9th; Engine No. 2 on the 11th; started up on the 13th—Canal choked with ice at Desplaines River; started up the 14th; stopped the 15th—freshet in Desplaines River; started on 22d. Engines stopped 21st—freshet in river.
February.....	.....	371	371	371	85.00	6.10	5.80	2.30	3.80	39,430	865,300	
March.....	501	.....	501	501	82.00	5.20	4.90	2.40	2.80	40,500	938,000	
April.....	413	.....	413	413	81.00	5.16	4.80	2.90	2.26	40,500	767,800	
May.....	744	.....	744	744	80.00	5.26	5.06	3.00	2.36	40,500	1,490,375	Engines started on the 13th.
June.....	.....	720	720	720	80.00	5.20	4.90	3.00	2.20	40,500	1,446,000	No stop.
July.....	744	.....	744	744	80.00	5.16	4.86	3.00	2.16	40,500	1,569,940	No stop.
August.....	744	744	.....	744	81.00	5.25	4.95	2.76	2.50	41,400	1,827,950	No stop.
September.....	.....	720	720	720	78.00	5.37	5.07	2.37	3.00	43,000	1,520,100	No stop.
October.....	294	478	478	216	78.00	5.37	5.07	2.23	3.14	44,275	983,025	Engines shut down on the 20th for testing pumps.
November.....	600	600	600	.....	79.00	5.28	4.98	1.90	3.38	45,000	1,301,300	Engines started up on the 5th.
December.....	192	288	336	144	80.00	5.85	5.55	1.76	4.10	45,000	880,565	Engines shut down on the 6th for testing; started up the 27th.
Totals.....	4,946	4,654	6,376	5,317	.....	.....	.....	.....	.....	.....	15,005,035	
Average.....	.....	.....	.....	.....	81.00	5.43	5.13	2.505	2.927	41,550*	.....	

## BUILDINGS FOR THE FIRE DEPARTMENT.

The following houses have been built for the Fire Department during the past year:

Corner of Stanton street and Warren avenue, cost .....	\$10,483
On Thirty-third Court .....	9,743
On Fifth avenue .....	14,800
On Franklin street .....	14,652

## ADDITION TO THE HOUSE OF CORRECTION.

A large addition to the House of Correction with 320 new cells is in progress of construction. Mr. Chas. E. Felton, the superintendent, has both designed and taken charge of the construction, using the labor of the prisoners to a large extent. When complete, he will no doubt give a full description of it in his report.

Allow me to acknowledge my obligation for the courtesy and co-operation of the Commissioner and the officers of the Department in all matters in charge of this office, and to the efficiency and faithfulness of Assistant Engineers Francis Murphy, John Lundie and Wm. D. Hotchkiss, the Draughtsmen, Wm. S. Chase and A. G. Riter, and to John A. Moody, and the Foremen in charge of the different branches, and others directly connected with the City Engineer's office.

S. G. ARTINGSTALL,  
*City Engineer.*



## Sewerage Department.

---

CHICAGO, December 31st, 1886.

W. H. PURDY, Esq.,

*Commissioner of Public Works.*

DEAR SIR: I herewith transmit the Eleventh Annual report of the Bureau of Sewers under the Department of Public Works, being the Thirty-First Annual Statement of the operations of this bureau since the establishment of the present sewerage system in the year 1855, which shows, in tabulated form, the amount of money expended and the work accomplished in the several branches of this bureau during the year ending December 31st, 1886. Also the total expenditures for constructing, maintaining and cleaning the same from 1855 to 1886, both inclusive, all of which is respectfully submitted.

O. H. CHENEY,  
*Supt. Sewers.*

LENGTH AND DIAMETER OF SEWERS IN PLACE DECEMBER 31st, 1886, IN THE THREE DIVISIONS.

DIAMETER IN FEET:	SOUTH DIVISION.		WEST DIVISION.		NORTH DIVISION.		TOTAL THREE DIVIS'NS.		Total in Place Dec. 31, 1886.
	Built Previous to 1886.	Built in 1886.	Built Previous to 1886.	Built in 1886.	Built Previous to 1886.	Built in 1886.	Built Previous to 1886.	Built in 1886.	
9 feet.....	.....	.....	15,493	.....	.....	.....	15,493	.....	15,493
8 feet.....	.....	.....	4,793	2,972	.....	.....	4,793	2,972	7,765
7½ feet.....	.....	.....	.....	1,000	.....	.....	.....	1,000	1,000
7 feet.....	.....	.....	.....	.....	.....	.....	.....	.....	1,462
6½ feet.....	.....	.....	1,462	.....	.....	.....	1,462	.....	3,512
6 feet.....	2,132	.....	1,380	.....	.....	.....	.....	.....	23,425
5½ feet.....	6,671	.....	12,700	.....	4,054	.....	23,425	.....	9,511
5 feet.....	.....	.....	9,511	.....	.....	.....	9,511	.....	73,732
4½ feet.....	12,990	.....	46,857	.....	13,885	.....	73,732	.....	79,601
4 feet.....	7,393	.....	63,875	.....	8,333	.....	79,601	.....	102,751
3½ feet.....	12,202	.....	78,295	336	11,918	.....	102,415	336	42,138
3¼ feet.....	4,201	.....	33,659	519	3,759	.....	41,619	519	665
3 feet.....	.....	.....	665	.....	.....	.....	665	.....	90,873
2½ feet.....	37,929	.....	39,331	1,258	12,355	.....	89,615	1,258	152,108
2½ feet.....	83,980	2,668	32,961	1,518	30,981	.....	147,922	4,186	6,359
2½ feet.....	6,359	.....	.....	.....	.....	.....	6,359	.....	629,066
2 feet.....	154,712	6,270	328,568	11,893	125,166	2,457	608,446	20,620	1,625
20 inches.....	1,625	.....	.....	.....	.....	.....	1,625	.....	46,767
18 inches.....	19,571	364	18,111	1,340	6,035	1,346	43,717	3,050	204,053
15 inches.....	34,391	4,689	129,033	15,160	20,260	520	183,684	20,369	912,228
12 inches.....	* 247,342	16,794	* 444,814	28,010	171,189	4,109	863,345	48,883	2,404,134
Totals.....	631,498	30,755	1,261,508	64,006	407,935	8,432	2,300,941	103,193	455,328
	662,253	.....	1,325,514	.....	416,367	.....	435,784	.....	Miles.
	27 55 per cent.	.....	55.13 per cent.	.....	17.32 per cent.	.....	Miles.	.....	

Of the above 455,328 miles 234,746 miles are constructed of brick, and 220,582 miles are of vitrified clay pipe.

\* During the year 364 feet of 12 inch sewer have been taken up in the South Division and 2,401 feet in the West Division, both being replaced by larger sewers.

TOTAL COST FOR THE CONSTRUCTION OF SEWERS AND  
CATCH-BASINS AND CLEANING SAME, SINCE THE  
ESTABLISHMENT OF THE SEWERAGE SYS-  
TEM IN 1855, TO JANUARY 1st, 1887.

Year.	Lineal feet of Sewers built.	No. of Catch- Basins built.	No. of Man Holes built.	No. of House Drains put in	Cost of cleaning Sewers and Catch-Basins.	Maintenance.	Cost of Constructing.
Previous to 61	283.586	1,174	2,102	2,194	\$ 5,619 48	No am'ts found on reports.	\$ 665,188 46
1861....	2.826	18	33	243	1,715 60	\$ 2,951 76	3,617 31
1862....	15.676	68	66	365	4,897 24	3,024 07	57,036 42
1863....	39.005	192	204	536	5,065 40	2,058 11	169,527 38
1864....	25.021	189	183	512	9,417 81	4,597 63	87,221 48
1865....	29.948	223	168	1,288	13,818 07	7,493 56	137,643 02
1866....	48.127	327	271	3,732	28,445 16	7,773 65	225,564 53
1867....	89.681	418	555	3,703	26,540 81	9,581 42	416,730 51
1868....	47.841	480	293	3,261	26,954 06	11,287 08	197,152 92
1869....	139.705	771	928	3,979	26,015 68	7,527 16	654,141 26
1870....	78.166	626	468	5,187	21,464 30	10,954 74	258,664 70
1871....	50.716	277	357	3,093	17,415 46	42,557 72	153,295 36
1872....	47.342	245	341	1,435	21,484 16	16,975 40	173,255 76
1873....	146.702	897	1,015	4,691	31,229 27	29,781 97	450,222 90
1874....	222.322	1,054	1,474	6,292	36,884 57	21,996 72	587,507 38
1875....	120.971	958	789	3,365	32,098 23	28,107 40	342,932 89
1876....	15.248	155	75	1,172	29,345 41	19,803 29	79,545 28
1877....	64.666	363	431	1,822	35,763 33	13,959 44	291,829 63
1878....	88.031	492	603	1,544	25,704 37	19,259 49	37,264 97
1879....	145.381	820	1,043	2,953	29,283 67	10,649 69	130,840 50
1880....	79.128	271	554	4,196	25,561 48	25,068 11	92,544 08
1881....	132.076	548	917	4,810	34,512 15	30,967 89	452,310 06
1882....	98.515	792	725	5,677	33,969 35	26,618 05	224,450 16
1883....	75.364	835	497	5,963	34,749 74	25,140 81	232,084 33
1884....	101.547	751	654	5,957	43,678 03	37,893 29	268,020 91
1885....	118.447	796	854	6,325	46,532 18	45,333 02	203,188 03
1886....	103.193	734	723	7,441	51,110 46	48,003 49	177,647 24
Totals..	†2,410,031	14,474	16,323	91,736	699,275 47	512,364 97	6,759,427 47

†Of this amount 5,897 feet have been taken up and replaced by sewers of larger size, leaving in place January 1st, 1887, 2,404,134 feet.

\*Of this amount 18 have been abandoned, leaving in place January 1st, 1887, 16,305.

LENGTH AND INTERIOR DIAMETER OF PUBLIC SEWERS IN PLACE DECEMBER 31, 1886, IN  
THE DIFFERENT WARDS OF THE CITY.

WARDS.	9 feet.	8 feet.	7 feet.	6½ feet.	6 feet.	5½ feet.	5 feet.	4½ feet.	4 feet.	3½ feet.	3 feet.	2½ feet.	2 feet.	20 in.	18 in.	15 in.	12 in.	Total in feet.
First.....									1,426		8,470	12,000	13,135			1,870	48,622	91,200
Second.....							494		656		5,200	6,065	11,036				30,234	56,062
Third.....					1,480		4,008		1,745		1,485	16,005	20,340		983		804	76,865
Fourth.....					704		1,058	1,261	7,875	916	4,685	30,547	44,123		6,763		9,735	160,862
Fifth.....					2,132		7,430	6,132	7,875	3,283	18,029	20,081	72,348		1,625		26,621	271,195
Sixth.....					4,487		3,303	12,105	15,558	7,205	4,547	6,840	29,877				37,041	294,118
Seventh.....		9,628	2,403		5,666	4,114	5,845	1,919	10,443	7,682	9,461	3,395	32,912		697		21,245	148,878
Eighth.....					2,642		9,305	10,675	6,320		1,175	639	37,445				1,557	107,469
Ninth.....							9,027	4,198	5,000				24,475				27,394	64,364
Tenth.....					1,206		6,648	3,911	3,684		705		28,810				17,874	63,390
Eleventh.....								10,019	8,620		11,796	679	31,428				2,277	100,290
Twelfth.....					50		2,656	2,664	15,020	12,133	11,796	4,506	59,626				41,548	257,513
Thirteenth.....								9,384	11,650	5,855	5,396	4,506	25,843				7,857	116,674
Fourteenth.....		5,865	5,272	1,000		3,046	2,741	12,729	9,996	1,373	1,519	7,427	70,045				36,081	292,009
Fifteenth.....								4,485	5,510	3,759	3,508	16,676	35,462				16,057	163,851
Sixteenth.....							2,765	1,253	660		2,354	9,029	24,966				355	77,510
Seventeenth.....					358		5,583		252		1,962	3,541	22,758				1,726	66,176
Eighteenth.....							5,537	2,615	5,496		4,531	1,441	44,437				2,642	108,930
Totals.....	15,493	7,765	1,000	1,462	3,512	23,425	9,511	73,732	79,401	102,751	42,138	665,900	873,152	1,025	46,767	204,053	912,228	2,404,134

\*2601 ft. 12-inch sewer taken up and replaced by larger sewer.

\*764 ft. 12-inch sewer taken up and replaced by larger sewer.

## SEWERAGE DEPARTMENT.

165

## SEWERS CONSTRUCTED DURING THE YEAR 1888 IN THE VARIOUS WARDS OF THE CITY.

WARDS..... SIZE.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	Total.
1 foot.....	.....	.....	1,403	5,599	9,762	5,242	1,830	250	350	.....	595	11,680	2,638	5,416	3,348	300	227	234	45,883
1¼ feet.....	.....	.....	.....	438	4,231	4,888	1,535	.....	.....	.....	.....	5,078	.....	3,659	.....	.....	520	.....	20,369
1½ feet.....	.....	.....	364	.....	.....	.....	.....	.....	.....	.....	.....	1,340	.....	.....	910	436	.....	.....	3,050
2 feet.....	.....	.....	.....	.....	6,270	671	2,377	.....	.....	.....	.....	3,766	2,021	3,658	659	862	.....	996	20,620
2¼ feet.....	.....	.....	.....	.....	2,668	.....	175	.....	.....	.....	.....	.....	.....	1,943	.....	.....	.....	.....	4,186
3 feet.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,258	.....	.....	.....	.....	1,258
3¾ feet.....	.....	.....	.....	.....	.....	519	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	519
4 feet.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	336	.....	.....	.....	.....	336
7½ feet.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,000	.....	.....	.....	.....	1,000
8 feet.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,972	.....	.....	.....	.....	2,972
Totals.....	.....	.....	1,767	6,057	22,931	11,320	5,917	250	350	.....	595	21,873	4,650	19,042	4,917	1,538	747	1,230	103,193

LENGTH AND INTERIOR DIAMETER OF PUBLIC SEWERS IN PLACE DECEMBER 31, 1886, IN  
THE DIFFERENT WARDS OF THE CITY.

WARDS.	9 feet.	8 feet.	7½ feet.	7 feet.	6½ feet.	6 feet.	5½ feet.	5 feet.	4½ feet.	4 feet.	3½ feet.	3 feet.	2½ feet.	2 feet.	20 in.	18 in.	15 in.	12 in.	Total in feet.
First.										1,928				13,135			1,870	48,622	91,290
Second.								494						11,096				30,234	56,062
Third.						1,480		4,008		686				29,340			864	30,954	*76,865
Fourth.						704		1,261		1,745				44,123		983		65,335	106,862
Fifth.						4,487		7,490		7,875				72,348		6,763	9,725	85,961	271,195
Sixth.						2,132		6,132		3,283				29,877		1,625	12,159	42,809	294,118
Seventh.		9,628				5,666		4,114		10,433				32,912		667	21,245	52,667	148,878
Eighth.						2,642				6,329				37,445			1,557	40,362	107,469
Ninth.														24,475				27,934	64,964
Tenth.						1,396		9,027		5,006				28,310				17,874	63,590
Eleventh.								6,618		3,911				31,428				41,548	100,290
Twelfth.						50		19,019		3,684				59,626			9,277	91,810	257,513
Thirteenth.								2,666		13,920				29,843				73,708	116,674
Fourteenth.		5,865	5,272			3,046		12,729		9,906				70,045		1,483	7,857	84,672	*292,009
Fifteenth.			1,000					4,485		5,510				35,462		4,606	36,081	72,975	103,851
Sixteenth.								2,765		660				24,960		5,425	16,057	34,192	77,510
Seventeenth.						338		5,683		252				22,758		1,956		29,596	66,776
Eighteenth.						3,696		5,337		5,490				44,437				38,565	108,930
Totals.	15,493	7,765	1,000	1,462	3,512	23,425	9,511	73,732	79,661	102,751	42,138	665,900	373,182	1,086,350	629,096	1,625	46,767	204,053	2,404,134

\*2601 ft. 12-inch sewer taken up and replaced by larger sewer.

\*994 ft. 12-inch sewer taken up and replaced by larger sewer.

## SEWERS CONSTRUCTED DURING THE YEAR 1886 THE SOUTH IN DIVISION. CONTINUED.

IN	FROM	TO	Diameter in feet.	Length in feet.
Thirty-fourth court.....	Laurel street.....	West.....	1	664
Thirty-second street.....	Laurel street.....	Alley East of Benson street.....	1	2,480
Thirty-third court.....	Ashland avenue.....	West 257 feet.....	1	257
Thirty-fourth court.....	Ullman street.....	East.....	1½	667
Thirty-fourth street.....	Dearborn street.....	Butterfield street.....	1½	297
Twenty-fourth street.....	S. Park avenue.....	Lake Park avenue.....	1½	364
Ullman street.....	Douglas avenue.....	Thirty-fourth court.....	2	386
Wall street.....	Thirty-second street.....	Springer street.....	1½	334
Wood street.....	Thirty-first street.....	Thirty-second street.....	2	623
Wood or Beers street.....	Egan avenue.....	Thirty-seventh street.....	2	1,317
Wood or Beers street.....	Douglas avenue.....	Thirty-seventh street.....	2½	1,335

## SEWERS CONSTRUCTED DURING THE YEAR 1888 IN THE NORTH DIVISION.

IN	FROM	TO	Diameter in feet.	Length in feet.
Alley.....	North from Schiller and east	of Astor street.....	1	300
Fullerton avenue .....	Southport avenue.....	Osgood street.....	1	2,204
Fullerton avenue.....	East of Lincoln street.....	East of Orchard street .....	1	1,022
Herndon street.....	Belden avenue.....	Fullerton avenue.....	1½	650
Herndon street.....	Webster avenue.....	Belden avenue.....	2	659
Indiana street.....	St. Clair street.....	East.....	2	400
North Branch street .....	Halsted street.....	North-west.....	1	227
North Branch street .....	Division street.....	North.....	1½	520
Orchard street .....	Kemper place.....	Fullerton avenue.....	1½	280
Smith avenue.....	North avenue.....	Blackhawk street.....	2	802
St. Clair street.....	Huron street.....	Superior street.....	1	234
St. Clair street.....	Huron street.....	Ontario street.....	2	596
Weed street.....	Smith street.....	Dayton street.....	1½	436

## SEWERS CONSTRUCTED DURING THE YEAR 1886 IN THE WEST DIVISION.

## SEWERAGE DEPARTMENT.

169

IN	FROM.	TO	Diameter in feet.	Length in feet.
Adams street.....	Washtenaw avenue.....	Railroad.....	1	563
Adams street.....	Sacramento avenue.....	Francisco avenue.....	1½	670
Adams street.....	California avenue.....	Francisco avenue.....	1½	670
Almond street.....	Ashland street.....	Taylor street.....	1	429
Boon street.....	Dudley street.....	Robey street.....	4	336
Bonney avenue.....	Leavitt street.....	De Kalb street.....	1	105
Bonney avenue.....	Twenty-second street.....	C. B. & Q.....	1	500
California avenue.....	Twenty-fourth street.....	North.....	1	346
Crystal street.....	Robey street.....	South.....	3½	519
Clarkson court.....	Lake street.....	East.....	1	445
Clinton street.....	Judd street.....	South.....	1	332
Cicero court.....	Van Buren street.....	Wilson street.....	1	272
Cicero court.....	Van Buren street.....	Jackson street.....	1	458
Colorado avenue.....	Sacramento avenue.....	Congress street.....	1	370
Commercial street.....	Armitage avenue.....	North-east.....	1	311
Commercial street.....	North avenue.....	North to railroad.....	1½	509
Commercial street.....	North avenue.....	Clybourn place.....	2	600
Cypress street.....	Ashland street.....	South.....	7½	1,000
Davis street.....	Thompson street.....	Taylor street.....	1	430
Davis street.....	Thompson street.....	South.....	1½	295
Emerson avenue.....	Oakley avenue.....	North avenue.....	2	632
Elston avenue.....	Division street.....	Leavitt street.....	1	670
Eighteenth street.....	Hoyle avenue.....	Augusta street, sewer.....	1	820
Fairfield avenue.....	Lake street.....	Oakley avenue.....	1½	1,302
Fulton street.....	Kedzie avenue.....	Fulton street.....	1	82½
Greenwich street.....	Hoyle avenue.....	Albany avenue.....	2	671
Genesee avenue.....	Twenty-second street.....	Robey street.....	1	670
Girard street.....	Clybourn place.....	Ogden avenue.....	1½	610
Girard street.....	Armitage avenue.....	Bloomington road.....	1½	646
Girard street.....	Armitage avenue.....	Clybourn place.....	2	660

## SEWERS CONSTRUCTED DURING THE YEAR 1886 IN THE WEST DIVISION.—CONTINUED.

TO	FROM	TO	Diameter in feet.	Length in feet.
Homer street.....	Hoyle avenue.....	Robey street.....	1	670
Hermitage avenue.....	Polk street.....	Taylor street.....	1	862
Idaho street.....	Polk street.....	Flournoy street.....	1	571
Johnson street.....	Nineteenth street.....	Nineteenth place.....	1	225
Laughton street.....	Leavitt street.....	Hoyle avenue.....	1	658
Laughton street.....	Leavitt street.....	Collins street.....	1½	400
Leavitt street.....	Armitage avenue.....	Courtland street.....	1½	560
Lake street.....	Homan avenue.....	Central Park avenue.....	2	1,350
Morgan street.....	Erte street.....	North.....	1	193
Millard avenue.....	Twenty-second street.....	South.....	1	325
Madison street.....	Sacramento avenue.....	Francisco street.....	1	680
Madison street.....	California avenue.....	Francisco street.....	1½	666
Madison street.....	St. Louis avenue.....	Homan avenue.....	1½	728
Madison street.....	Central Park avenue.....	St. Louis avenue.....	2	584
Madison street.....	Kedzie avenue.....	Homan avenue.....	2	1,311
Madison street.....	Leavitt street.....	Hoyle avenue.....	1½	608
Moore street.....	Western avenue.....	W. to Railroad.....	1½	575
Marvin street.....	Armitage avenue.....	North.....	1	495
North place.....	Western avenue.....	Oakley avenue.....	1	637
Nineteenth street.....	Leavitt street.....	Hoyle avenue.....	1	635
Nineteenth street.....	Turner avenue.....	Homan avenue.....	1	312
Nineteenth street.....	Sawyer avenue.....	Turner avenue.....	2	671
Nassau street.....	N. line Van Buren.....	North.....	1	239
North avenue.....	Leavitt street.....	Western avenue.....	2½	1,343
North avenue.....	Robey street.....	Leavitt street.....	3	1,258
North avenue.....	Western avenue.....	California avenue.....	8	2,734
Oakley avenue.....	Homer street.....	Wilmet street.....	1	190
Oakley avenue.....	Van Buren street.....	Jackson street.....	1	453
Oakley avenue.....	Armitage avenue.....	Homer street.....	1½	275
Ogden avenue.....	Western avenue.....	Railroad.....	1½	645

## SEWERS CONSTRUCTED DURING THE YEAR 1886 IN THE WEST DIVISION.—CONTINUED.

## SEWERAGE DEPARTMENT.

171

IN	FROM	TO	Diameter in feet.	Length in feet.
Ogden avenue.....	Western avenue.....	Twelfth street.....	3	870
Ogden avenue.....	California avenue.....	Rockwell street.....	2	1,467
Ogden avenue.....	Rockwell street.....	Railroad.....	14	443
Paulina street.....	Armitage avenue.....	North.....	1	275
Paulina street.....	Taylor street.....	North.....	1	420
Peterson street.....	Taylor street.....	South.....	1	296
Polk street.....	Robey street.....	Hoyle avenue.....	1	670
Parmelee street.....	Wood street.....	Lincoln street.....	1	593
Park avenue.....	Leavitt street.....	Oakley avenue.....	1 1/2	668
Park avenue.....	530 feet west of Kedzie avenue	Homan avenue.....	1 1/2	787
Quincy street.....	Kedzie avenue.....	West.....	2	530
Robey street.....	Halsted street.....	East.....	1	350
Robey street.....	Huron street.....	Superior street.....	1	200
Robey street.....	Thomas street.....	Iowa street.....	1 1/2	1,398
Raleigh court.....	Jane street.....	Thomas street.....	2	325
Rockwell street.....	Thirteenth street.....	South.....	1	415
Spaulding avenue.....	North line of Ogden avenue.....	South line of Ogden avenue.....	2 1/2	175
Seeley avenue.....	C. B. & Q. railroad.....	Nineteenth street.....	1	987
Stanton avenue.....	Monroe street.....	North.....	1	200
Sixteenth street.....	Madison street.....	Warren avenue.....	1	264
Sibley street.....	Wood street.....	Paulina street.....	1	634
Sacramento avenue.....	Vernon Park Place.....	North.....	1	250
Turner avenue.....	Van Buren street.....	South of Wilcox.....	1	932
Troy street.....	Nineteenth street.....	South.....	1	300
Taylor street.....	Jackson street.....	North.....	1	300
Twenty-first street.....	Robey street.....	Lincoln street.....	1 1/2	591
Twenty-fourth street.....	Sawyer street.....	Spaulding avenue.....	1 1/2	332
Thirtieth street.....	Genesee avenue.....	Bonney avenue.....	1 1/2	333
Van Buren street.....	Western avenue.....	Willis Court.....	1 1/2	447
	Kedzie avenue.....	East of Troy street.....	1 1/2	500

## SEWERS CONSTRUCTED DURING THE YEAR 1886 IN THE WEST DIVISION.—CONTINUED.

IN	FROM	TO	Diameter in feet.	Length in feet.
Wabansia avenue.....	Robey street.....	Hoyne avenue.....	1	676
Wabansia avenue.....	Robey street.....	East.....	1	240
Wilcox avenue.....	Sacramento avenue.....	Francisco street.....	1	670
Wilcox avenue.....	520 feet west of Campbell ave. West.....	West.....	1	72
Wilcox avenue.....	California avenue.....	West.....	1½	670
Wood street.....	North avenue.....	Wabansia avenue.....	2	628
Washtenaw avenue.....	Lake street.....	Fulton street.....	1	822
Washtenaw avenue.....	Van Buren street.....	Jackson street.....	1½	445
Warren avenue.....	Albany avenue.....	Sacramento avenue.....	1	675
Warren avenue.....	Homan avenue.....	East.....	1½	650
Warren avenue.....	Kedzie avenue.....	Albany avenue.....	2	679
Warren avenue.....	Kedzie avenue.....	West.....	2	662
Western avenue.....	North avenue.....	North.....	8	23½
Willis Court.....	Thirteenth street.....	South.....	1	465
York street.....	Ashland avenue.....	Lafin street.....	1	563



## WING SEWERS BUILT DURING 1893 IN WEST DIVISION.

IN	FROM	TO	Diameter in feet.	Length. in feet.
Albany avenue.....	M. H. in Van Buren street.....	North and south.....	1	86
East side Campbell park.....	M. H. in Van Buren street.....	South.....	1	40
West side Campbell Park.....	M. H. in Van Buren street.....	South.....	1	40
Cicero court.....	M. H. in Van Buren street.....	North and south.....	1	76
Clarinda street.....	M. H. in Paulina street.....	East and west.....	1	79
Cornelia street.....	M. H. in Paulina street.....	East and west.....	1	79
Cornelia street.....	M. H. in Robey street.....	West.....	1	47
Crystal street.....	M. H. in Robey street.....	West.....	1	40
Davis street.....	M. H. in North avenue.....	North.....	1 $\frac{1}{2}$	37
Davis street.....	M. H. in North avenue.....	South.....	2	35
Diller street.....	M. H. in Austin avenue.....	North and south.....	1	84
Emily street.....	M. H. in Paulina street.....	East and west.....	1	76
Fall street.....	M. H. in Warren avenue.....	North.....	1	42
Ferdinand street.....	M. H. in Robey street.....	West.....	1	40
Francisco street.....	M. H. in Van Buren street.....	North and south.....	1	88
Francisco street.....	M. H. in Warren avenue.....	North and south.....	1	88
First street south of Taylor street.....	M. H. in Oakley avenue.....	East.....	1	40
Hoyne avenue.....	M. H. in Twenty-first street.....	North and south.....	1	76
Hoyne avenue.....	M. H. in North avenue.....	North.....	2	40
Iowa street.....	M. H. in Robey street.....	East.....	1	39
Jane street.....	M. H. in Paulina street.....	East and west.....	1	77
Kansas street.....	M. H. in Ladin street.....	West.....	1	42
Lincoln street.....	M. H. in 21st street.....	North and south.....	1	71
Lincoln street.....	M. H. in Polk street.....	South.....	1	47
Lynn place.....	M. H. in Western avenue.....	West.....	1	44
Marshfield avenue.....	M. H. in Polk street.....	South.....	1	44
Nassau street.....	M. H. in Van Buren.....	North.....	1	43
Oakley avenue.....	M. H. in Twenty-first street.....	North and south.....	1	90
Oakley avenue.....	M. H. in North avenue.....	North.....	1 $\frac{1}{2}$	39
Oakley avenue.....	M. H. in North avenue.....	South.....	2	40

## WING SEWERS BUILT DURING 1888 IN WEST DIVISION.—CONTINUED.

IN	FROM	TO	Diameter in feet.	Length in feet.
Paulina street.....	M. H. in Twenty-first street..	North and south.....	1	80
Paulina street.....	M. H. in Polk street.....	South.....	1	44
Sacramento avenue.....	M. H. in Van Buren street.....	North and south.....	1	84
Shober street.....	M. H. in North avenue.....	South.....	2	40
Stevens street.....	M. H. in Van Buren street..	North.....	1	42
Thomas street.....	M. H. in Robey street.....	East and west.....	1	80
Troy street.....	M. H. in Van Buren street.....	North.....	1	42
Twelfth street.....	M. H. in Western avenue.....	West.....	2	40
Washtenaw avenue.....	M. H. in Van Buren street.....	South.....	1	41
Washtenaw avenue.....	M. H. in Van Buren street.....	North.....	1½	41
Whipple street.....	M. H. in Van Buren street.....	North.....	1	43
Yeaton street.....	M. H. in Robey street.....	East.....	1	47
York street.....	M. H. in Wood street.....	East.....	1	42

## WING SEWERS BUILT DURING 1896 IN WEST DIVISION.

IN	FROM	TO	Diameter in feet.	Length, in feet.
Albany avenue.....	M. H. in Van Buren street.....	North and south.....	1	86
East side Campbell park.....	M. H. in Van Buren street.....	South.....	1	40
West side Campbell Park.....	M. H. in Van Buren street.....	South.....	1	40
Cicero court.....	M. H. in Van Buren street.....	North and south.....	1	76
Clarinda street.....	M. H. in Paulina street.....	East and west.....	1	79
Cornelia street.....	M. H. in Paulina street.....	East and west.....	1	79
Cornelia street.....	M. H. in Robey street.....	West.....	1	47
Crystal street.....	M. H. in Robey street.....	West.....	1	40
Davis street.....	M. H. in North avenue.....	North.....	1 1/2	37
Davis street.....	M. H. in North avenue.....	South.....	2	35
Diller street.....	M. H. in Austin avenue.....	North and south.....	1	84
Emily street.....	M. H. in Paulina street.....	East and west.....	1	76
Fall street.....	M. H. in Warren avenue.....	North.....	1	42
Ferdinand street.....	M. H. in Robey street.....	West.....	1	40
Francisco street.....	M. H. in Van Buren street.....	North and south.....	1	88
Francisco street.....	M. H. in Warren avenue.....	North and south.....	1	88
First street south of Taylor street.....	M. H. in Oakley avenue.....	East.....	1	40
Hoynes avenue.....	M. H. in Twenty-first street.....	North and south.....	1	76
Hoynes avenue.....	M. H. in North avenue.....	North.....	2	40
Iowa street.....	M. H. in Robey street.....	East.....	1	39
Jane street.....	M. H. in Paulina street.....	East and west.....	1	77
Kansas street.....	M. H. in Ladin street.....	West.....	1	42
Lincoln street.....	M. H. in 21st street.....	North and south.....	1	71
Lincoln street.....	M. H. in Polk street.....	South.....	1	47
Lynn place.....	M. H. in Western avenue.....	West.....	1	44
Marshallfield avenue.....	M. H. in Polk street.....	South.....	1	44
Nassau street.....	M. H. in Van Buren.....	North.....	1	43
Oakley avenue.....	M. H. in Twenty-first street.....	North and south.....	1	90
Oakley avenue.....	M. H. in North avenue.....	North.....	1 1/2	39
Oakley avenue.....	M. H. in North avenue.....	South.....	2	40

## WING SEWERS BUILT DURING 1886 IN WEST DIVISION.—CONTINUED.

IN	FROM	TO	Diameter in feet.	Length in feet.
Paulina street.....	M. H. in Twenty-first street..	North and south.....	1	80
Paulina street.....	M. H. in Polk street.....	South.....	1	44
Sacramento avenue.....	M. H. in Van Buren street....	North and south.....	1	84
Shober street.....	M. H. in North avenue.....	South.....	2	40
Stevens street.....	M. H. in Van Buren street..	North.....	1	42
Thomas street.....	M. H. in Robey street.....	East and west.....	1	80
Troy street.....	M. H. in Van Buren street....	North.....	1	42
Twelfth street.....	M. H. in Western avenue.....	West.....	2	40
Washtenaw avenue.....	M. H. in Van Buren street....	South.....	1	41
Washtenaw avenue.....	M. H. in Van Buren street....	North.....	1½	41
Whipple street.....	M. H. in Van Buren street....	North.....	1	43
Yeaton street.....	M. H. in Robey street.....	East.....	1	47
York street.....	M. H. in Wood street.....	East.....	1	42

## WING SEWERS BUILT DURING THE YEAR 1886 IN SOUTH DIVISION.

IN	FROM	TO	Diameter in feet.	Length in feet.
Bonfield street.....	M. H. in Thirty-first street.....	North.....	1½	46
Butterfield street.....	M. H. in Twenty-fourth street.....	North and south.....	1	80
Eda street.....	M. H. in Michigan avenue.....	East and west.....	1	112
Muspratt street.....	M. H. in Thirty-first street.....	South.....	2	44
Pitney court.....	M. H. in Thirty-first street.....	South.....	1½	40
Thirty-seventh place.....	M. H. in Michigan avenue.....	East and west.....	1	120
Thirty-seventh place.....	M. H. in Wabash avenue.....	East and west.....	1	110
Thirty-eighth street.....	M. H. in Wabash avenue.....	East and west.....	1	110
Thirty-ninth street.....	M. H. in Wentworth avenue.....	East.....	1	44
Thirty-ninth street.....	M. H. in Michigan avenue.....	East and west.....	1	1:0
Wall street.....	M. H. in Thirty-first street.....	South.....	2	42

## WING SEWERS BUILT DURING THE YEAR 1886 IN NORTH DIVISION.

IN	FROM	TO	Diameter in feet.	Length in feet.
Belden avenue.....	M. H. in Southport avenue.....	East and west.....	1	68
Hawthorne avenue.....	M. H. in Southport avenue.....	South east.....	1	54



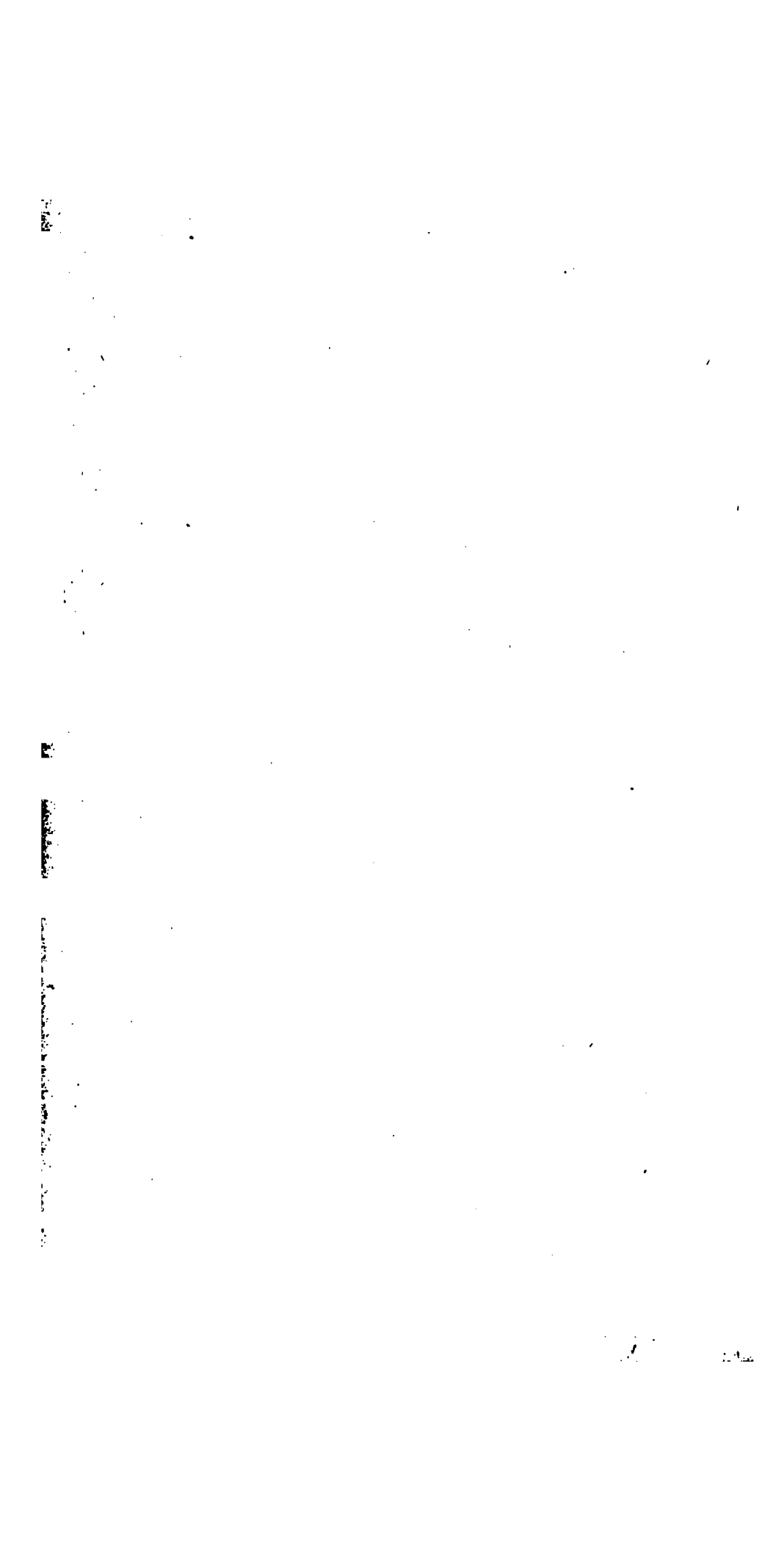
## DEPARTMENT OF PUBLIC WORKS.

SUMMARY OF RECEIPTS AND EXPENDITURES IN THE HOUSE DRAIN DEPARTMENT DURING  
THE YEAR 1886.

DIVISIONS.	PERMITS ISSUED.				RECEIPTS.	EXPENDITURES.
	12 Inches.	9 Inches.	6 Inches.	Total.		
West.....	4	58	2,339	2,401	\$ 12,350 00	
South.....	2	53	773	828	5,327 50	
North.....	1	- 23	241	265	1,785 00	
Licenses, &c.....					149 00	
Special Assessments.....					20,496 65	
Miscellaneous Credits.....					51 25	
Totals.....	7	134	3,353	3,494	\$ 40,153 40	
Superintendence, Inspection and Office Supplies.....						\$ 18,949 59
Junctions and Slants set in new Sewers during the year 1886.....						4,687 85
Junctions and Slants set in old Sewers during the year 1886.....						427 89
Surplus.....						16,088 07
Total.....						\$ 40,153 40

## NUMBER OF HOUSE DRAINS PUT IN PLACE UNDER SPECIAL ASSESSMENT DURING THE YEAR 1886.

DIVISIONS.	Total Number of Drains.	Total Length in Feet.	Total Cost.	Average Cost per Drain.	Average Length per Drain in Feet.	Average Cost per Foot.
West .....	2,737	70,617	\$ 22,654 17	\$ 8 26	25.8	32.09 Cents.
South .....	942	28,544	8,344 75	8 86	28.18	31.44 Cents.
North .....	268	6,783	2,822 37	10 53	25.33	41.58 Cents.
Totals .....	3,947	103,949	\$ 33,821 29	\$ 8 57	26 34	32.53 Cents.



# Bureau of Streets.

---

CHICAGO, December 31st, 1886.

W. H. PURDY,

*Commissioner of Public Works.*

DEAR SIR:—I have the honor to submit herewith the Eleventh Annual Report of the Bureau of Streets. It contains a general review of the work accomplished during the year, under the supervision of this Bureau, also Street Railway extensions, etc.

## STREET AND ALLEY IMPROVEMENTS.

The following tables show the progress made in Street and Alley improvements, which embraces more work of its character than was ever before accomplished in the history of the city for one year, also the total lengths in lineal feet and miles, as well as surface measurement in square yards:

## STREETS IMPROVED.

NAME OF STREET.	FROM	TO	Commenced.	Finished.
Alley bt Illinois & Indiana sts	N. State street....	Dearborn avenue	June 25	July 7
Alley bt Illinois & Michigan sts	Clark street.....	La Salle avenue.	July 25	Aug. 7
Alley bt Illinois & Michigan sts	Dearborn avenue.	State street.....	Nov. 22	Nov. 29
Astor street.....	Scott street.....	Schiller street..	June 11	June 26
*Belden avenue...	N. Park avenue..	N. Clark street..	Nov. 16, 1885	June 3
Chestnut street...	N. Clark street...	Wells street.....	May 6	May 25
Chestnut street...	Rush street.....	Pine street.....	Sept. 21	Sept. 28
Chicago avenue...	Clark street.....	N. Br. Chicago R	Oct. 1	Oct. 23
Division street...	N. Branch Canal.	N. Br. Chicago R	May 25	July 7
*Franklin street..	Chicago avenue...	Division street..	July 1	July 17
Goethe street.....	Wells street.....	Sedgwick street.	June 4	July 3
Huron street.....	State street.....	Pine street.....	July 22	July 26
Hurlbut street...	North avenue....	Fullerton avenue	July 19	Aug. 14
Huron street.....	N. Clark street...	N. Franklin st..	Sept. 21	Oct. 9
Larrabee street...	Webster avenue..	Fullerton avenue	May 21	June 9
Maple street.....	Dearborn avenue.	State street.....	May 13	May 28
Mohawk street...	North avenue....	Garfield avenue.	July 21	Sept. 21
Rush street.....	Erie street.....	Chicago avenue..	July 2	Aug. 12
Sedgwick street...	Lincoln avenue..	Belden avenue..	July 17, 1885	May 14
Schiller street...	N. State street...	Lake Shore Drive	May 20	July 2
Sigel street.....	Wells street.....	Sedgwick street.	June 10	June 18
Sedgwick street...	North avenue....	Division street..	June 1	June 30
Schiller street...	Clark street.....	Dearborn avenue	Sept. 6	Sept. 17
Schiller street...	Wells street.....	Sedgwick street.	Sept. 16	Oct. 4
Southport avenue.	Clybourn avenue.	Fullerton avenue	July 5	July 17
Walton place.....	State street.....	Pine street.....	June 1	July 24
Wesson street....	Oak street.....	Division street..	May 29	June 12

\*Work done under private contract.

## FIFTH DIVISION.

CONTRACTOR.	NATURE OF IMPROVEMENT.	Square Yards.	Lineal Feet.
A. Sackley.....	Oak planking.....		359.25
an, Labounty & Co....	Cedar blocks.....	564.72	320.45
Vider.....	Cedar blocks, curbing & fill	728.39	358.22
McAdam & Co.....	Cedar blocks and curbing..	3,420.69	997.64
Wilson.....	Macadam.....	2,286.83	686.05
Smith & Co.....	Cedar blocks.....	2,559.56	650.54
Smith & Co.....	Cedar blocks, C. and G....	2,383.45	514.59
Conway.....	Cedar blocks and grading..	14,387.42	3,734.80
Conway.....	Cedar blocks.....	9,133.70	1,911.06
Vider.....	Cedar blocks.....	2,896.90	2,691.91
Smith & Co.....	Cedar blocks.....	3,086.52	895.57
Smith & Co.....	Cedar blocks.....	4,260.32	937.96
Vider.....	Cedar blocks.....	17,684.55	5,221.87
Smith & Co.....	Cedar blocks.....	3,490.90	978.34
Vider.....	Cedar blocks and curbing..	5,482.74	1,291.34
Smith & Co.....	Cedar blocks.....	1,223.01	357.48
Vider.....	Cedar blocks, C. and G....	12,041.53	3,411.77
os Asphalt & Stone Co.	Gravel (crushed).....		1,006.82
son & Perkins.....	Cedar blocks and curbing..	7,096.06	1,813.19
Conlan.....	Macadam.....	2,368.21	749.02
Vider.....	Cedar blocks.....	3,496.84	1,004.31
Vider.....	Cedar blocks.....	6,821.39	2,725.14
lahon & Clarkson.....	Cedar blocks and curbing..	1,114.03	320.88
Smith & Co.....	Cedar blocks and curbing..	3,191.26	1,011.29
Conway.....	Cedar blocks.....	12,637.99	2,937.22
Conway.....	Cedar blocks and curbing..	3,546.43	971.36
McAdam & Co.....	Cedar blocks.....	4,033.28	1,184.94
	Total.....	129,936.72	39,043.01

7.39 Miles.



## TH DIVISION.

CONTRACTOR.	NATURE OF IMPROVEMENT.	Square Yards.	Lineal Feet.
Vider.....	Granite blocks.....	1,242.58	568.42
Donlan.....	Granite blocks.....	1,631.10	497.84
r Asphalt Paving Co.	Sheet asphalt, (Concrete Founda'ns.)	1,637.70	921.21
Smith & Co.....	C. and G. Cedar blocks....	684.00	350.80
Vider.....	Cedar blocks.....	2,113.32	802.63
n, Labounty & Co...	Granite blocks, (repave)...	7,989.87	2,192.40
Vider.....	C. and F. Cedar blocks....	694.72	568.40
lla, Daley & Co.....	Cedar blocks.....	18,218.50	5,235.68
Wilson.....	Macadam.....	14,108.30	3,967.96
& J. Duffy.....	Cedar blocks.....	11,970.28	2,809.89
Conway.....	Granite blocks.....	4,278.70	756.87
lla, Daley & Co.....	Macadam.....	1,798.54	425.97
n, Labounty & Co...	Granite blocks.....	3,246.59	855.45
Smith & Co.....	Cedar blocks.....	1,304.00	390.70
Smith & Co.....	Cedar blocks.....	4,509.58	1,804.10
Smith & Co.....	Cedar blocks.....	5,082.90	1,182.06
C. Sackley.....	Granite blocks.....	4,822.84	892.70
Conway.....	Granite blocks.....	2,455.08	756.28
C. Sackley.....	Granite blocks.....	6,729.69	1,587.43
McBean & Co.....	Cedar blocks.....	1,347.03	540.87
C. Sackley.....	Macadam.....	1,107.28	524.50
C. Sackley.....	Granite blocks.....	1,576.72	398.11
s & Thatcher.....	Macadam.....	3,386.96	802.18
McBean & Co.....	C. W. and F. Cedar blocks.	11,553.94	4,457.74
McBean & Co.....	Cedar blocks.....	11,792.64	2,743.63
lla, Daley & Co.....	C. and F. Cedar blocks....	7,029.67	1,670.82
lla & O'Connor.....	Curb and fill.....		
Smith & Co.....	Cedar blocks, C. and G....	5,180.36	1,179.03
Smith & Co.....	Cedar blocks, C. and F....	5,062.05	1,175.33
McBean & Co.....	Cedar blocks, C. and F....	1,740.85	404.94
lla, Daley & Co.....	Cedar blocks, curbing.....	3,079.86	812.30
McBean & Co.....	C. and F. Cedar blocks....	9,982.56	3,935.50
C. Sackley.....	Granite blocks repave....	4,042.69	758.00
Smith & Co.....	Cedar blocks repave.....	13,317.25	2,762.16
Smith & Co.....	Cedar blocks repave.....	13,191.70	2,685.90
n, Labounty & Co...	Asphalt blocks, C. and F..	8,098.31	1,491.69
	Total.....	196,008.16	52,909.49

Total Miles, 10.02

## STREETS IMPROVED.

NAME OF STREET.	FROM	TO	Commenced.	Finished.
Alley bt. Blue Island av & Silver st.	Harrison street...	Gurley street...	June 10	June 25
Alley bt. Lake & Walnut st.	Wood street.....	Lincoln street...	June 2	June 24
Alley block 1, Sawyer's Add.	Elizabeth street...	Ada street.....	July 1	July 13
Alley block 48, Carpenter's Add.	Curtis street.....	May street.....	June 20	June 25
Alley bt. Madison & Washington st.	Ann street.....	Elizabeth street.	June 25	June 30
N. Alley block 47, Carpenter's Add.	Ann street.....	May street.....	June 17	June 25
Alley bt. Park av & Lake st.	Wood street.....	Lincoln street...	July 13	July 24
Alley bt. Halsted & Green sts.	Madison street...	Monroe street...	July 21	Aug. 2
Alley bt. Park av & Washington bd.	Robey street.....	Hoyne avenue...	July 20	July 27
Alley bt. Ashland av & Paulina st.	Park avenue.....	Washington bd..	July 12	July 25
Alley block 2, Union Park Add.	Sheldon street...	Lots 98 & 10, Union Park Add.	July 27	July 31
Aberdeen street...	Harrison street...	Polk street.....	June 12	July 3
Austin avenue...	Ashland avenue...	Hoyne avenue...	July 12	July 31
Ada street.....	Randolph street..	Carroll avenue...	June 17	July 29
Arthington street.	Centre avenue...	Lytle street. ....	June 10	Oct. 29
Allport street....	Sixteenth street..	Nineteenth st....	Sept. 6	Sept. 14
Austin avenue...	Hoyne avenue...	Western avenue..	July 15	Sept. 10
Brown street....	Taylor street.....	Twelfth street...	July 3	July 12
Bunker street...	Canal street.....	Halsted street...	July 27	Aug. 6
Campbell avenue.	W. Madison street	Polk street.....	May 12	June 11
Clinton street...	Van Buren street.	Harrison street.	Aug. 5	Aug. 12
Clinton street....	Madison street...	Van Buren street	Aug. 10	Aug. 19
Centre avenue...	Milwaukee ave....	Augusta street..	July 26	July 29
Cornelia street...	Milwaukee ave....	Ashland avenue..	July 10	Aug. 11
Clarkson court...	Washington bd....	Lake street.....	Aug. 20	Sept. 29
Curtis street.....	Fulton street.....	Huron street....	June 26	Sept. 23
Carroll avenue...	Leavitt street....	Ashland avenue..	June 19	Sept. 4
Congress street...	Halsted street....	Center avenue...	June 8	Oct. 12
Cicero court.....	Jackson street...	Van Buren street	Oct. 18	Nov. 11
Depuyster street.	Halsted street....	Desplaines street	May 31	June 4
W. Eighteenth st.	Canal street .....	Union street....	July 8	July 17
W. Erie street...	Milwaukee ave....	Curtis street....	Aug. 10	Aug. 29
W. Erie street....	Ashland avenue..	Leavitt street...	Sept. 14	Nov. 12
Elston avenue...	100 ft N. of Wade st	Division street..	Sept. 21	Sept. 30
W. Eighteenth st.	Ashland avenue..	Wood street....	Aug. 11	Sept. 25
Flournoy street...	Leavitt street....	Ogden avenue...	May 29	June 4
Front street.....	Carpenter street..	Sangamon street	July 28	Aug. 4
Fulton street....	Ashland avenue..	Ada street.....	Sept. 9	Sept. 17
Fulton street....	Sangamon street..	Ada street .....	Sept. 7	Sept. 25
Honore street....	Adams street....	Harrison street..	June 14	Aug. 5
W. Huron street.	Ashland avenue..	Leavitt street...	Sept. 14	Nov. 12
Idaho street.....	Van Buren street.	Harrison street..	May 21	May 24
W. Indiana street	Ashland avenue..	Halsted street...	June 11	July 3
W. Indiana street	Ashland avenue..	Hoyne avenue...	Aug. 7	Aug. 19
Johnson street...	W. Twelfth street	W. Fourteenth...	June 8	June 11
Jefferson street...	Van Buren street	Harrison street..	July 18	July 27
Johnson street...	W. Fourteenth st.	Wright street...	Aug. 6	Oct. 9
Keith street.....	W. Huron street..	W. Chicago ave..	Sept. 25	Oct. 22
Lafin street.....	Taylor street.....	Twelfth street...	June 15	July 17

## STREET DEPARTMENT.

187

## WEST DIVISION.

CONTRACTOR.	NATURE OF IMPROVEMENT.	Square Yards.	Lineal Feet.
Jas. Conlan.....	3-inch pine plank.....		461.12
Jas. A. Sackley.....	3-inch oak plank.....		600.00
W. F. Hair.....	Cedar blocks.....	877.52	453.89
W. F. Hair.....	Cedar blocks.....	350.67	252.48
W. F. Hair.....	Cedar blocks.....	929.26	492.33
W. F. Hair.....	Cedar blocks.....	279.56	251.60
W. F. Hair.....	Cedar blocks.....	1,199.94	599.97
W. F. Hair.....	Cedar blocks.....	611.47	397.06
Lyman, Labounty & Co.....	Cedar blocks.....	1,026.38	599.20
Lyman, Labounty & Co.....	Cedar blocks.....	410.21	283.99
Lyman, Labounty & Co.....	Cedar blocks.....	429.62	316.66
J. V. McAdam & Co.....	Cedar blocks.....	3,589.12	913.28
J. V. McAdam & Co.....	Cedar blocks.....	14,063.31	3,341.10
R. F. Conway.....	C. and F., cedar blocks.....	4,049.42	1,151.23
Kinsella, Daley & Co.....	Curb and fill.....		369.00
A. J. McBean & Co.....	C. and F., cedar blocks.....	5,159.82	1,222.06
J. V. McAdam & Co.....	C. and F., cedar blocks.....	8,662.71	2,028.12
Olaf Vider.....	Fill and cedar blocks.....	3,407.84	796.07
A. J. McBean & Co.....	Cedar blocks.....	7,612.92	2,027.23
R. F. Conway.....	Cedar blocks.....	12,248.19	3,668.96
A. J. McBean & Co.....	Cedar blocks.....	3,012.18	812.14
A. J. McBean & Co.....	Cedar blocks.....	5,609.93	1,609.69
J. B. Smith & Co.....	Cedar blocks.....	2,534.48	595.85
J. B. Smith & Co.....	C. and F., cedar blocks.....	6,704.48	1,986.67
M. C. & J. Duffy.....	C. and F., cedar blocks.....	1,295.19	403.45
J. V. McAdam & Co.....	C. and F., cedar blocks.....	10,376.67	2,424.47
J. B. Smith & Co.....	C. and P., cedar blocks.....	14,433.60	3,810.31
Olaf Vider.....	Curbstone.....		2,331.00
Andrew Jaicks.....	C. and F., cedar blocks.....	1,285.36	466.01
A. J. McBean & Co.....	Cedar blocks.....	3,119.93	814.06
J. B. Smith & Co.....	Cedar blocks.....	6,216.70	1,465.01
J. B. Smith & Co.....	Cedar blocks.....	4,646.71	853.92
J. V. McAdam & Co.....	C. and G., cedar blocks.....	16,043.98	3,799.15
J. V. McAdam & Co.....	C. and F., cedar blocks.....	4,334.12	928.74
D. A. Thacher.....	C. and F., cedar blocks.....	3,288.16	1,340.97
D. A. Thacher.....	Cedar blocks.....	4,815.86	1,401.21
J. B. Smith & Co.....	Cedar blocks.....	1,716.35	406.50
J. B. Smith & Co.....	Cedar blocks.....	7,343.02	1,714.82
J. B. Smith & Co.....	Cedar blocks.....	12,630.13	2,848.78
M. C. & J. Duffy.....	C. and F., cedar blocks.....	4,656.08	1,372.22
J. V. McAdam & Co.....	C. and G., cedar blocks.....	16,100.00	3,750.35
R. F. Conway.....	Cedar blocks.....	2,570.30	732.69
R. F. Conway.....	Cedar blocks.....	20,707.67	5,538.28
J. V. McAdam & Co.....	Cedar blocks.....	8,933.23	3,524.69
J. B. Smith & Co.....	Cedar blocks.....	5,176.84	1,207.30
J. B. Smith & Co.....	Cedar blocks.....	3,651.59	808.41
Olaf Vider.....	Curb and fill.....		391.60
J. B. Smith & Co.....	C. and F., cedar blocks.....	2,007.66	588.96
M. C. & J. Duffy.....	C. and F., cedar blocks.....	3,719.34	852.89

## STREETS IMPROVED.

NAME OF STREET.	FROM	TO	Commenced.	Finished.
Lytle street.....	Taylor street....	Twelfth street..	Aug. 21	Aug. 26
Liberty street ...	Jefferson street..	Halsted street...	Sept. 6	Nov. 2
Morgan street ...	Harrison street..	Twelfth street..	May 13	May 29
W. Monroe street.	Throop street....	Loomis street...	June 17	July 9
W. Morgan street	Lake street.....	Fulton street....	July 16	Aug. 31
Morgan street....	Washington st...	Randolph street..	June 26	Aug. 16
Mather street....	Desplaines street.	Halsted street...		Sept. 4
W. Nineteenth st.	Centre avenue...	Blue Island ave..	Aug. 27	Sept. 21
Newberry avenue	Maxwell street...	Fourteenth st... Oct. 9		Oct. 16
Newberry avenue	W. Twelfth street	Maxwell street...	June 4	Oct. 1
North avenue....	Milwaukee ave...	Western ave....	Nov. 20	Nov. 29
Oakley avenue...	Adams street....	Ogden avenue...	Aug. 4	Nov. 29
Paulina street....	Harrison street..	Polk street.....	May 18	June 18
Paulina street....	North avenue...	Wabansia ave....	May 26	June 30
Paulina street....	Milwaukee ave...	North ave.....	June 17	June 28
Paulina street....	Lake street.....	Madison street..	June 19	July 1
Paulina street....	Madison street...	Jackson street..	June 16	July 10
Paulina street....	Chicago avenue...	Division street..	May 17	Aug. 6
Paulina street....	Lake street.....	Indiana street...	Aug. 8	Sept. 9
Polk street.....	Halsted street....	Centre avenue... Oct. —		Oct. 13
Polk street.....	Ogden avenue...	Robey street....	Oct. 25	Nov. 16
Paulina street...	Indiana street....	W. Chicago ave..	Sept. 1	Nov. 20
Quincy street....	Desplaines street.	Halsted street... July 1		Aug. 13
Robey street....	Lake street.....	Indiana street... Aug. 2		Sept. 30
Robey street....	Ogden avenue...	W. Polk street... Sept. 12		Nov. 15
Robey street....	Division street...	Bryson street... Sept. 1		Nov. 30
Robey street....	W. Polk street...	W. Twelfth st... Sept. 16		Nov. 27
Sangamon street..	Monroe street ...	Harrison street.. July 19		July 28
Sangamon street..	Chicago avenue...	C. N. W. R. tr'ck July 29		Aug. 3
Sebor street.....	Desplaines street.	Halsted street... June 10		Aug. 16
St. Johns place...	Carroll avenue...	Arbor place.... July 15		Aug. 13
Seeley avenue ...	Madison streets...	Van Buren st ... July 1		Aug. 10
School street....	Jefferson street...	Desplaines st... Sept. 25		Oct. 9
Tell place.....	Milwaukee ave...	Ashland avenue.. Aug. 26		Sept. 2
Twenty-first st ...	Blue Island ave...	Western avenue.. Oct. 9		Oct. 26
Thirteenth street.	Blue Island ave...	Ashland ave....		
Twelfth street ...	Blue Island ave...	Ashland avenue.. Oct. 13		Oct. 29
Twentieth street.	Halsted street....	Centre avenue... July 3		Nov. 20
Twentieth street.	Throop street. ...	Blue Island ave.. June 28		Nov. 26
Van Buren street.	Western avenue...	California ave... Sept. 14		Nov. 12
Van Buren street.	California avenue	Kedzie avenue... Oct. 10		Nov. 22
N. Wood street...	Indiana street....	Chicago avenue.. Nov. 23		May 3
N. Wood street...	Chicago avenue...	Division street... May 29		June 12
N. Wood street...	Milwaukee ave...	North avenue... Aug. 12		Aug. 16
Western avenue...	Van Buren street.	Ogden avenue... July 1		Sept. 24
Wood street.....	Harrison street..	Twelfth street... Aug. 9		Oct. 9
Wilcox avenue..	Western avenue...	Rockwell street. Sept. 20		Nov. 12

## ST DIVISION.—CONTINUED.

CONTRACTOR.	NATURE OF IMPROVEMENT.	Square Yards.	Lineal Feet.
7. McAdam & Co. ....	Cedar blocks.....	3,038.32	797.02
J. McBean & Co. ....	C. and F. cedar blocks.....	2,863.04	1,160.54
J. McBean & Co. ....	Cedar blocks.....	10,707.14	2,522.64
J. Smith & Co. ....	Cedar blocks.....	2,512.20	595.00
J. McBean & Co. ....	Cedar blocks and curbing ..	1,483.91	340.40
f. Vider.....	Curbing, cedar blocks.....	1,603.40	379.75
B. Smith & Co. ....	Curbing, cedar blocks.....	2,654.61	843.20
J. McBean & Co. ....	C. and F. cedar blocks.....	7,146.43	1,626.78
B. Smith & Co. ....	C. and F. cedar blocks.....	1,628.38	378.30
f. Vider.....	Curb and fill.....		820.30
B. Smith & Co. ....	Cedar blocks.....	6,870.76	2,673.31
F. Conway.....	C. and F. cedar blocks.....	17,622.35	4,095.61
B. Smith & Co. ....	Cedar blocks and curbing ..	3,106.88	922.46
B. Smith & Co. ....	C. and F. cedar blocks.....	2,666.78	613.92
B. Smith & Co. ....	Cedar blocks.....	7,995.49	1,967.25
C. & J. Duffy.....	Cedar blocks and curbing ..	4,940.07	1,114.75
C. & J. Duffy.....	C. F. and G. cedar blocks ..	4,239.35	1,186.61
7. McAdam & Co. ....	C. and G. cedar blocks.....	10,307.44	2,580.86
B. Smith & Co. ....	C. and G. cedar blocks.....	6,705.46	1,739.34
J. McBean & Co. ....	Cedar blocks.....	10,706.15	2,498.68
7. McAdam & Co. ....	C. and F. cedar blocks.....	2,021.62	459.59
B. Smith & Co. ....	C. and G. cedar blocks.....	6,901.21	1,956.36
C. & J. Duffy.....	Cedar blocks and curbing ..	3,021.62	820.65
F. Conway.....	C. and G. cedar blocks.....	7,334.94	1,698.91
7. McAdam & Co. ....	C. and F. cedar blocks.....	2,445.46	568.73
B. Smith & Co. ....	Cedar blocks and curbing ..	2,508.89	714.27
7. McAdam & Co. ....	C. and F. cedar blocks.....	2,731.96	1,701.04
J. McBean & Co. ....	Cedar blocks.....	8,345.67	1,976.61
B. Smith & Co. ....	Cedar blocks.....	3,014.22	558.50
C. & J. Duffy.....	Grade and curb.....		810.00
f. Vider.....	Curbing, cedar blocks.....	720.85	260.61
F. Conway.....	C. and F. cedar.....	5,542.69	1,595.01
B. Smith & Co. ....	Cedar blocks.....	623.91	319.05
7. McAdam & Co. ....	C. and F. cedar blocks.....	4,044.81	934.40
7. McAdam.....	Grading, cedar blocks.....	14,608.63	5,855.24
Ms. E. Courtney.....	Curb, wall and fill.....		2,898.50
J. McBean & Co. ....	Cedar blocks.....	9,280.33	3,651.75
Isella, Daley & Co. ....	C. and F. cedar blocks.....	11,587.49	2,699.94
Isella, Daley & Co. ....	C. and F. cedar blocks.....	5,477.62	1,250.17
F. Conway.....	C. and F. cedar blocks.....	6,516.99	2,562.27
F. Conway.....	C. and F. cedar blocks.....	7,253.05	2,844.98
7. McAdam & Co. ....	Cedar blocks.....	3,819.78	1,811.32
7. McAdam & Co. ....	Cedar blocks and C. wall ..	10,790.64	2,670.33
B. Smith & Co. ....	Cedar blocks.....	5,149.82	1,217.48
F. Conway.....	C. and F. cedar blocks.....	14,773.34	4,050.97
7. McAdam & Co. ....	C. and F. cedar blocks.....	11,335.73	2,653.83
7. McAdam & Co. ....	C. and F. cedar blocks.....	4,286.04	1,277.53
Total.....		504,771.99	147,635.25

27.96 miles.

## SUMMARY OF STREETS IMPROVED.

PAVEMENT.	North Division.	South Division.	West Division.	Total Miles.
Cedar blocks.....	6.86	6.73	26.32	39.91
Sheet Asphalt.....		.18		.18
Macadam.....	.27	1.08		1.35
Asphalt Blocks.....		.28		.28
Medina Stone.....				
Granite Blocks.....		1.75		1.75
Cinderling.....				
Graveling.....	.19			.19
Curbing.....			1.44	1.44
Planking.....	.07		.20	.27
Total Miles.....	7.89	10.02	27.96	45.87

## STREET DEPARTMENT.

191

THE FOLLOWING SHOWS THE KIND OF PAVING IN EACH DIVISION OF THE CITY AT THE  
CLOSE OF THE YEAR.

	Wooden Blocks.	Macadam.	Medina Stone.	Granite Stone.	Asphalt Blocks.	Sheet Asphalt.	Graveling.	Cinderling.	Grand Total Miles.
North .....	47.71	1.19	.49	.04	.....	1.97	.42	1.26	53.08
South .....	57.93	7.62	4.15	7.09	3.96	.83	4.38	.36	85.82
West .....	119.62	19.40	.39	.....	.....	.32	2.64	7.85	150.72
Total .....	225.26	28.21	5.03	7.13	3.96	3.12	7.44	9.47	289.62
Less repaving done in 1886	11.91	.....	.....	.....	.....	.....	.....	.....	11.91
Total Miles .....	213.35	28.21	5.03	7.13	3.96	3.12	7.44	9.47	277.71

The total number of miles of pavement laid each year, from the introduction of street paving in 1855 to the present date, is given in the following review:

YEAR.	Number of Miles.	YEAR.	Number of Miles.
1855.....	1.72	1871.....	25.63
1856.....	.26	1872.....	1.82
1857.....	2.62	1873.....	10.19
1858.....	7.20	1874.....	9.07
1859.....	5.70	1875.....	11.49
1860.....		1876.....	10.50
1861.....	.69	1877.....	12.29
1862.....	2.57	1878.....	11.01
1863.....	2.00	1879.....	6.83
1864.....	2.40	1880.....	16.84
1865.....	2.03	1881.....	24.52
1866.....	8.87	1882.....	24.95
1867.....	11.37	1883.....	22.49
1868.....	5.46	1884.....	34.52
1869.....	18.32	1885.....	38.06
1870.....	19.96	1886.....	43.66
		Total number of miles.	395.04

Of this amount 117.33 miles has been repaved during the same period, which reduces the actual amount of improved streets within the corporate limits at this date to 277.71 miles.

## LUMBER.

The following table shows in detail the amount of lumber used by the division foremen in the repairs and construction of aprons, culverts, crossings, sidewalk intersections and repairs to which is added the amount of lumber used in the construction of sidewalks, for which special assessments were levied:

FOR WHAT USED.	SOUTH DIVISION.				WEST DIVISION.				NORTH DIVISION.			
	No.	LUMBER.		No.	LUMBER.		No.	LUMBER.		No.	LUMBER.	
		No. Feet. PINE.	No. Feet. OAK.		No. Feet. PINE.	No. Feet. OAK.		No. Feet. PINE.	No. Feet. OAK.		No. Feet. PINE.	No. Feet. OAK.
Aprons.....	1,146	64,384	94	1,881	237,649	.....	516	21,519	.....	.....	.....	.....
Crossings.....	369	60,384	60	1,294	208,796	3,526	178	21,370	3,614	.....	.....	.....
Culverts.....	88	47,275	.....	480	151,501	466	26	3,278	.....	.....	.....	.....
Drain Boxes.....	20	1,450	.....	80	11,252	.....	8	318	.....	.....	.....	.....
Steps and Railings.....	58	9,737	.....	194	16,968	.....	145	3,823	.....	.....	.....	.....
Sidewalk General Repairs.....	.....	73,391	.....	229	133,315	.....	304	17,474	.....	.....	.....	.....
Sidewalk Intersections.....	346	138,768	150	821	481,008	.....	254	106,547	.....	.....	.....	.....
General Repairs.....	.....	22,440	.....	.....	25,709	.....	.....	3,467	.....	.....	.....	.....
Total No. Feet.....	2,027	417,829	304	4,979	1,266,198	3,992	1426	187,796	.....	.....	.....	3,614

## RECAPITULATION.

Total amount of Pine Lumber.....	1,871,823 Feet.
Total amount of Oak Lumber.....	7,910 "
To which is added the amount of Lumber used in constructing Sidewalks under Special Assessment.....	1,212,552 "
Grand Total.....	3,092,285 "

## REPAVING.

The amount of repaving done by the division foremen, in the work of repairing improved streets, the replacing of pavement, where openings were made by Gas Companies, Water and Sewerage Departments and on account of street permits and general repairs is given in the following; also the amount of repaving done by contractors for Gas Companies, etc. The work having been done under this Department's supervision and the expense of same paid by the Companies interested:

FOR WHAT PURPOSE.	SOUTH DIV.	WEST DIV.	NORTH DIV.
	Square Yds.	Square Yds.	Square Yds.
General Repairs.....	14,554	13,056	5,893
Gas Companies.....	417	36	56
Water Department.....	1,656	662	251
Sewer Department.....	507	97	80
Street Permits.....	3,274	3,735	1,103
Total.....	20,408	17,586	7,383

45,377

To be added the amount of repaving done

by contractors for Gas Companies, etc.. 97,491

Grand total square yards..... 142,868

## UNIMPROVED STREETS.

In the work of grading and ditching, the unimproved streets have been kept in as good passable condition as money at disposal would permit. The

total length of streets graded and ditched by the division foremen amounts in the aggregate to about 268 miles.

The following streets were planked (all of the materials used being furnished by property owners in the localities mentioned):

A street from Dominick street to Southport avenue.....	800 feet.
Canal street from, 18th street to South Branch River.....	1,000 feet.
Fillmore street, from Rockwell street to Western avenue.....	1,300 feet.
38th court, from Halsted street to Laurel street.....	1,300 feet.
Reese street, from Halsted street to Hawthorne avenue.....	488 feet.
Total.....	4,888 feet.

#### IMPROVED STREETS.

The contract for sweeping and cleaning the improved streets was awarded to Frederick W. Keaton, on March 31st. The work of cleaning commenced on April 8th, and was drawn to a close December 14th. The contract price per mile was \$28.49, and the total cost of the work under the contract amounted to \$93,797.88. The number of miles cleaned each month is shown in the following:

MONTH.	MILES.	MONTH.	MILES.
April.....	285.61	September.....	433.38
May.....	493.39	October.....	283.20
June.....	523.23	November.....	236.77
July.....	515.04	December.....	21.03
August.....	539.86	Total No. Miles..	3,331.51
Less intersections deducted.....			18.16
Net total.....			3,313.35

General average per month for eight months 416.44 miles.

In addition to the above, 84 miles of macadam paved streets were scraped and cleaned by district foreman of the department.

#### PERMITS FOR OPENING STREETS.

Fourteen hundred and one permits were issued to sundry parties, to open improved streets. A sufficient amount of cash was deposited on each permit to cover cost of replacing pavements, etc., to their original condition.

Sixteen hundred and fourteen permits were issued to gas companies and sundry other companies, on which no cash deposits were made. The work of replacing pavements being done by contractors employed by the companies, subject to inspection and

the acceptance of the department. A summary is given herewith:

MONTH.	NO. ISSUED.	MONTH.	NO. ISSUED.
January.....	28	August.....	170
February.....	27	September.....	138
March.....	65	October.....	163
April.....	155	November.....	114
May.....	122	December.....	45
June.....	186	Total.....	1,401
July.....	188		

Average amount of permits issued each month 117.

Number of permits issued for opening improved streets on which deposits were made.....	1,401
Number of permits issued for opening improved streets by gas companies, etc...	1,614
Total number of openings on improved streets.....	3,015
Number of permits issued for opening unimproved streets.....	2,408
Grand Total.....	5,423
General average per month.....	452

Amount of cash on deposit		
December 31, 1885.....	\$ 3,870 00	
Amount on deposit during		
1886.....	25,565 00	
Amount retained as costs for		
repaving and inspection...\$ 9,667 85		
Amount rebated to depositors. 15,492 15		
Amount of cash on deposit		
December 31st, 1886.....	4,275 00	
Totals.....	\$29,435 00	\$29,435 00
Average amount of cash deposit.....	\$18 25	
Average amount retained for costs.....	6 84	

### PERMITS FOR USE OF STREETS.

Twelve hundred and sixty-eight (1,268) permits were issued to sundry parties to occupy streets for the purpose of depositing materials thereon during the construction of buildings (which includes 33 permits issued to roofing contractors. The number of permits issued monthly, the amount of cash deposits, and revenue received for use of streets is given in the following statement:

MONTH.	NO. ISSUED.	MONTH.	NO. ISSUED.
January.....	34	August.....	155
February.....	38	September.....	114
March.....	111	October.....	86
April.....	145	November.....	79
May.....	158	December.....	36
June.....	169	Total No. Issued	1,268
July.....	143		

Average number issued each month..... 106

Amount on deposit December

31st, 1885..... \$ 3,145 75

Total amount of cash deposit

made during 1886..... 13,360 00

Amount returned for use of

street as per Sec. 1,104 Mu-

nicipal Code..... \$ 4,826 50

Amount rebated to depositors 8,334 25

Amount on deposit December

31st, 1886..... 3,345 00

Totals.....\$16,505 75 \$16,505 75

Average amount of cash deposits..... \$10 54

## PARKS.

In the work of taking care of parks, the money at the disposal of the department was used in their maintenance. The amount of money expended for

each park is shown in the Bookkeeper's financial statement.

### HOUSE MOVING.

Licenses were issued to 52 house-movers. During the year 884 permits were granted to move buildings. Of this number 855 were of frame, and 29 brick buildings, the total frontage aggregating 17,759 lineal feet. A general review of the work apportioned by divisions, appears in the table.

The number of buildings moved each month, and the cash receipts from this source is shown in the following tabulated statement:

## DEPARTMENT OF PUBLIC WORKS.

MONTH.	No. of Permits.	CASH RECEIPTS.	Frame.	Brick.	DIVISION.			HEIGHTS.				FEET FRONTAGE.	Average Frontage.
					North.	South.	West.	1 Story.	2 Story.	3 Story.	4 Story.		
January.....	27	\$ 135	27	.....	4	3	20	12	15	.....	.....	509	18.85
February.....	80	400	79	1	10	3	67	28	50	.....	1	1,614	20.18
March.....	118	590	118	.....	17	11	90	50	63	4	1	2,423	20.50
April.....	129	645	125	.....	30	16	83	50	77	2	.....	2,580	20.00
May.....	98	490	93	5	14	19	65	46	49	3	.....	1,981	20.21
June.....	109	545	99	10	18	25	66	47	61	1	.....	2,171	20.20
July.....	80	400	79	1	17	18	45	39	40	1	.....	1,608	20.00
August.....	68	340	63	5	18	17	33	26	36	6	.....	1,369	20.00
September.....	61	305	59	2	5	13	43	24	35	2	.....	1,218	20.00
October.....	64	320	64	.....	6	12	46	26	33	5	.....	1,308	20.50
November.....	29	145	29	.....	9	8	17	17	10	2	.....	572	19.71
December.....	21	105	20	1	3	2	16	11	10	.....	.....	406	19.33
Totals.....	884	\$4,420	855	29	151	142	591	376	479	27	2	17,750	20.09

The total feet frontage of the twenty-nine brick buildings shown in the above table as having been moved is 605 lineal feet giving an average frontage of 20.83 feet to each building.

The following statement shows the number of gas lamps in the city at the commencement and close of each year, from the organization of the Department of Public Works in 1876, to date:

YEAR.	WEST DIVISION.			SOUTH DIVISION.			NORTH DIVISION.		
	No. of Lamps Jan. 1.	No. added.	Total.	No. of Lamps Jan. 1.	No. added.	Total.	No. of Lamps Jan. 1.	No. added.	Total.
1876.....	5,160	202	5,362	2,965	92	3,057	2,095	39	2,134
1877.....	5,362	97	5,439	3,057	47	3,104	2,134	34	2,168
1878.....	5,439	42	5,481	3,104	17	3,121	2,168	15	2,183
1879.....	5,481	38	5,519	3,121	1	3,122	2,183	58	2,241
1880.....	5,519	137	5,656	3,122	31	3,153	2,241	30	2,271
1881.....	5,656	196	5,852	3,153	18	3,171	2,271	50	2,321
1882.....	5,852	289	6,141	3,171	27	3,198	2,321	9	2,330
1883.....	6,141	415	6,554	3,198	255	3,453	2,330	54	2,384
1884.....	6,554	1,004	7,558	3,453	133	3,586	2,384	165	2,549
1885.....	7,558	594	8,152	3,586	223	3,809	2,549	59	2,608
1886.....	8,152	853	9,005	3,809	376	4,185	2,608	188	2,796

Total number added during the past ten years:

West Division.....	3,845
South    ".....	1,220
North    ".....	701
	<hr/>
	5,766

Number of gas lamps in city Jan. 1, 1876 .... 10,220

Total number of gas lamps in city December 31st, 1886.....15,986

The following statement shows the number of oil lamps erected in the city each year from their introduction in 1880 to the present date:

YEAR.	WEST DIVISION.			SOUTH DIVISION.			NORTH DIVISION.		
	No. of Lamps Jan. 1.	No. added.	Total.	No. of Lamps Jan. 1.	No. added.	Total.	No. of Lamps Jan. 1.	No. added.	Total.
1881.....	257	.....	257	97	.....	97	220	.....	220
1882.....	257	675	932	97	501	598	220	815	535
1883.....	932	262	1194	598	.....	598	535	38	571
1884.....	1194	125	1319	598	189	787	571	.....	571
1885.....	1319	790	2109	787	111	898	571	63	634
1886.....	2109	272	2381	898	447	1,345	634	50	684

Total number added during the past five years:

West Division.....	1,888
South     "     .....	1,188
North     "     .....	398
	<hr/>
	3,474

Total number of oil lamps in city January 1,

1881 .....	574
------------	-----

Total number of oil lamps in city December

31, 1886.....	4,048
---------------	-------

CHICAGO, December 31, 1886.

MR. L. E. MCGANN,

*Superintendent of Streets.*

DEAR SIR: I herewith present my Annual Report of street lamps for the year 1886, at the close of the year there was, including those on bridges, viaducts, parks and boulevards, 15,986 gas lamps and 4,048 oil lamps in the city as follows, to-wit:

## GAS LAMPS.

DIVISION.	No. in City Jan. 1st, 1886.	No. Erected during year 1886.	TOTAL.
West.....	8,152	853	9,005
South.....	3,809	376	4,185
North.....	2,608	188	2,796
Total.....	14,569	1,417	15,986

## OIL LAMPS.

DIVISION	No. in City Jan. 1st, 1886.	No. Erected during year 1886.	TOTAL.	Less number discontinued where gas mains have been laid dur- ing year 1886.	TOTAL
West.....	2,109	272	2,381	236	2,145
South.....	898	447	1,345	60	1,285
North.....	634	50	684	66	618
Total.....	3,641	769	4,410	362	4,048

The number of lamps glazed to replace broken glass was 31,919, of which 20,047 were in the West

Division and 11,872 in the South and North Divisions, the average per day being about 55 in the West Division, and 32 in the North and South Divisions. In this work there was used 180 boxes of door lights of glass, 194 boxes of top lights and 742 boxes of side lights.

In glazing lamps for new lamp posts erected during the year, there was used 37 boxes of door lights of glass, 88 boxes of top lights of glass and 115 boxes of side lights of glass. The total number of boxes used was 1356 of 50 feet each.

The number of old lamps repaired and painted was 390, of these 178 were for the West Division and 212 for the South and North Divisions.

Three thousand and eighty-eight new lamps were made, included in this number were one thousand and fifty-three guide lamps.

Eight hundred and fifty-three were for new posts erected in the West Division, three hundred and seventy-six in the South Division and one hundred and eighty-eight in the North Division.

Sixteen hundred and seventy-one new lamps were used to replace those worn out or destroyed, of these ten hundred and fifteen were put in the West Division and six hundred and fifty-six in the North and South Divisions. There are now over fourteen

thousand of the "Stewart Patent" Gas Lamps in the city.

A contract has been let for glass signs with letters cut, for all the gas lamps, about one thousand lamps are already furnished and I expect all will be finished by the end of March next. Temporary tin signs are being put on the oil lamps as they are taken down when gas mains are put in a street.

Respectfully Submitted.

JOHN STEWART,  
*Superintendent of Street Lamps.*

## SIDEWALKS.

The number of miles of sidewalks rebuilt during the year, including wood, stone and concrete, also miles of sidewalk repaired is shown in the following table:

DIVISION.	MATERIAL.			TOTAL MILES.	Sidew'ks Repaired	GRAND TOTAL MILES.
	Wood.	Stone.	Concrete			
South.....	11.06	6.84	.65	18.55	17.42	35.97
West.....	45.44	3.55	.42	49.41	17.58	66.99
North.....	3.34	3.22	.50	7.06	6.76	13.82
Total.....	59.84	13.61	1.57	75.02	41.76	116.78

In addition to the above there has been 39.99 miles of sidewalk constructed on ground never before occupied by sidewalks, distributed in each division as follows:

South Division..... 5.51 miles.  
 West Division..... 31.48 "  
 North Division..... 3.00 "

Making a total of 156.77 miles of sidewalk built, rebuilt and repaired during the year. Of the above there has been built of wooden walks by the city under special assessment 11.62 miles.

The total number of miles of sidewalks under the control of the city and the West, South and Lincoln

Park Commissioners at the close of the year is given in the following summary:

Under control of	MATERIAL.			TOTAL MILES.	INCREASE OVER THE YEAR 1886.			
	Wood Miles.	Stone Miles.	Concrete Miles.		Wood Miles.	Stone Miles.	Concrete Miles.	Total Miles.
City .....	786.59	77.17	13.61	877.37	39.99	11.63	1.57	53.19
S. Park com'rs .....		9 79	.....	9.79	.....	1.98	.....	1.98
W. Park com'rs .....		6.06	.....	6.06	.....	.....	.....	.....
Lincoln P. com .....		.75	.....	.75	.....	.....	.....	.....
	786.59	93.77	13.61	893.97	39.99	13.61	1.57	55.17
Wood sidewalk replaced by stone and concrete.				15.18				15.18
Total miles in city .....				878.79	Total increase...			39.99

During the year the Department constructed stone sidewalks on Calumet avenue from Twentieth street to Twenty-sixth street, and also on the same avenue from Thirty-first street to Thirty-fifth street, also on Madison street from Canal street to Halsted street for which a special assessment was levied, the work being done under contract.

## STREET RAILWAYS.

During the year the different companies have laid pavement on the portion of the streets occupied by their tracks as follows:

## PAVEMENT.

CORPORATION.	Granite Block— Square Yds.	Cobble Stone— Square Yds.	Wood Plks Sqr. Yds.	Total Square Yds.
Chicago City Ry. Co....	16,791	.....	17,100	33,891
Chicago W. Div. Ry. Co	233	9,963	41,031	51,167
Chicago Pass'g.Ry. Co..	4,363	39,722	3,004	47,089
N. Chic. Street Ry. Co..	500	10,650	.....	11,150
Totals.....	21,887	60,275	61,135	143,297

Street railway extensions were made by the different companies as follows:

## CHICAGO WEST DIVISION RAILWAY CO.

ON	FROM	TO	Lineal Feet.	Remarks.
Division street.....	Milwaukee ave....	California avenue	16,368	Double track.
Fifth avenue.....	Van Buren street.	Polk street. ....	3,379	Double track.
Ogden avenue.....	Randolph street..	Madison street....	2,429	Double track.
Lake street.....	Homan avenue....	Fortieth street....	8,448	Double track.
Meagher street.....	Jefferson street..	Canal street.....	845	Single track.
Van Buren street.....	Western avenue..	Kedzie avenue....	11,088	Double track.
West 18th street. ....	Halsted street....	Leavitt street....	24,500	Single track.
Total.....	.....	.....	67,057	12.70 miles.

## CHICAGO PASSENGER RAILWAY CO.

ON	FROM	TO	Lineal Feet.	Remarks.
Michigan avenue.....	Adams street.....	Washington st....	1,349	Double track.
Washington street.....	Michigan avenue..	Franklin street...	3,005	Double track.
Franklin street.....	Washington st....	Harrison street....	3,200	Double track.
Adams street.....	Michigan avenue..	Clark street.....	1,810	Double track.
W. Adams street.....	Desplaines street..	Center avenue....	3,585	Double track.
Harrison street.....	Franklin street...	Desplaines street..	2,520	Double track.
Center avenue.....	Adams street.....	Twenty-first street	8,990	Double track.
Western avenue.....	Flournoy street....	Twelfth street....	2,280	Double track.
Twenty-first street....	Blue Island ave...	Western avenue...	5,640	Double track.
Total.....			32,379	6.73 miles.

## NORTH CHICAGO STREET RAILROAD CO.

ON	FROM	TO	Lineal Feet.	Remarks.
Halsted street.....	Fullerton avenue..	Clybourn avenue..	5,653	Double track.
Market street.....	Chicago avenue...	Illinois street....	2,013	Double track.
Market street.....	Illinois street....	Michigan street...	283	Single track...
Illinois street.....	Market street....	Wells street.....	860	Single track...
Michigan street.....	Market street....	Wells street.....	866	Single track...
Total.....			9,675	1.83 miles.

Respectfully submitted,

L. E. McGANN,

*Superintendent of Streets.*



## SPECIAL ASSESSMENT DEPARTMENT.

---

CHICAGO, December 31, 1886.

W. H. PURDY, Esq.,

*Commissioner of Public Works:*

DEAR SIR: I submit herewith, in tabular form a statement of special assessments made in this department during the past year, with a summary of the estimated cost of the same, also the amount of special assessments made in each year during the past twenty-six years.

In my report to commissioner Cregier, two years since, I made the following, among other suggestions, which I think of sufficient importance to repeat, knowing that if it should be adopted, much labor and expense could be saved each year.

"In making this report, I beg leave to make some few suggestions, which, if acted upon, I am sure will be of benefit, not only to the department, but to the public at large. As you are well aware, for the past three years especially, a much larger number of street improvements have been ordered by the Council than it was possible to carry out, from the fact that the city could not appropriate a sufficient amount for its proportionate share of the cost.

This has arisen from the fact that no action has been taken by the Council until late in the season, when lists of streets to be improved have been presented from every ward in the city, by the respective aldermen, and also one by a committee designated by Council, consisting of yourself, the fire marshal and the superintendent of streets.

Ordinances for all these improvements have been prepared and passed by Council, and assessments made, before the property owners interested have had any knowledge of the fact, the notices of the assessment, in a majority of cases, being the first notification they have received. This could be easily remedied if the Council would appoint the committee above referred to, say, as early as September, instead of waiting until December, and on presentation of their report, have it referred to the committees of streets and alleys for the three divisions of the city. Then,

if the various chairmen would have lists published in all the daily papers, giving the names of the streets recommended to be improved, with the character of the improvement, and invite all parties interested to be present at the meeting of the committee when they were to be acted upon, an expression of opinion could be obtained in advance, and only such ordinances be recommended for passage as would meet the views of the property owners, thus saving the labor and expense of preparing a large number of assessments which have heretofore been made, and afterwards ordered annulled or delayed for an indefinite period."

## STATEMENT OF ASSESSMENTS FOR WOODEN BLOCK PAVEMENT.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,404	Oakley avenue.....	W. Adams street.....	Ogden avenue.....	\$ 45,254 10
6,495	Morgan street.....	W. Washington street.....	W. Randolph street.....	3,352 36
6,558	Maple street.....	Dearborn avenue.....	N. State street.....	2,696 15
6,559	Paulina street.....	W. Madison street.....	W. Jackson street.....	8,689 85
6,646	Clinton street.....	W. Madison street.....	W. Van Buren street.....	9,081 30
6,690	W. Monroe street.....	Throop street.....	Loomis street.....	5,307 92
6,662	Johnson street.....	W. Twelfth street.....	W. Fourteenth street.....	8,026 26
6,663	Chestnut street.....	Rush street.....	Pine street.....	4,121 82
6,664	Southport avenue.....	Clybourn Place.....	Fullerton avenue.....	19,502 15
6,665	Huron street.....	N. State street.....	Pine street.....	6,757 27
6,667	Walton Place.....	N. State street.....	Pine street.....	6,956 83
6,668	Huron street.....	N. Clark street.....	N. Franklin street.....	7,323 91
6,674	W. & Cottage Grove avenue.....	University Place.....	College Place.....	1,725 62
6,677	Huron street.....	In front of N. E. & Black 12 Minie's Mill. to Chicago		397 98
6,678	Brown street.....	W. Taylor street.....	W. Twelfth street.....	5,469 13
6,680	Paulina street.....	N. State street.....	Wabansia avenue.....	8,225 41
6,681	Austin avenue.....	Hoyne avenue.....	Western avenue.....	17,186 29
6,682	W. Eighteenth street.....	Asht and avenue.....	Wood street.....	16,297 81
6,687	Wood street.....	W. Harrison street.....	W. Twelfth street.....	30,149 91
6,688	Mather street.....	Desplaines street.....	Halsted street.....	4,009 40
6,689	Indiana avenue.....	Douglas avenue.....	Egan avenue.....	18,585 64
6,706	Vernon avenue.....	Twenty-ninth street.....	Thirtieth street.....	5,458 87
6,708	W. Nineteenth street.....	Center avenue.....	Blue Island avenue.....	18,181 98
6,709	W. Twentieth street.....	Halsted street.....	Center avenue.....	30,871 51
6,710	Robey street.....	W. Division street.....	Bryson street.....	5,092 50
6,712	Butler street.....	Twenty-fourth street.....	Archer avenue.....	4,576 70
6,721	W. Indiana street.....	Halsted street.....	Ashtland avenue.....	33,546 55
6,722	Morgan street.....	W. Indiana street.....	Milwaukee avenue.....	11,073 73
6,771	Indiana avenue.....	Twenty-second street.....	Twenty-ninth street.....	19,216 76
6,772	Alley.....	W. Madison street.....	W. Monroe, bet. Halsted street and Green street.,	1,191 97

6,773	Sangamon street.....	West Monroe street.....	West Harrison street.....	13,053 00
6,774	West Twentieth street.....	Throop street.....	Blue Island avenue.....	15,289 55
6,781	School street.....	Jefferson street.....	Desplaines street.....	1,196 67
6,782	Alley.....	Elizabeth street.....	Ada St., in B'k J, Sawyer's Add. to Chicago.	1,686 84
6,783	Alley.....	May street.....	Ann St., in N. part B'k 47, Carpenter's Add. to Chi'o	583 92
6,784	Sigel street.....	West Wells street.....	Sedgwick street.....	6,717 51
6,785	Allport street.....	West Sixteenth street.....	West Nineteenth street.....	15,360 20
6,786	West Indiana street.....	Ashland avenue.....	Hoyle avenue.....	13,500 64
6,787	South Alley.....	Block 48.....	Carpenter's Add. to Chicago.....	742 08
6,788	North Alley.....	Block 48.....	Carpenter's Add. to Chicago.....	720 40
6,789	Liberty street.....	Jefferson street.....	Halsted street.....	6,920 78
6,790	West Van Buren street.....	California avenue.....	Kedzie avenue.....	19,970 22
6,791	West Taylor street.....	Leavitt street.....	Campbell avenue.....	22,287 97
6,817	West Polk street.....	Ogden avenue.....	Robey street.....	6,101 15
6,819	Western avenue.....	West Van Buren street.....	Ogden avenue.....	38,874 05
6,823	Schiller street.....	North Clark street.....	Dearborn avenue.....	2,512 61
6,831	Robey street.....	West Polk street.....	West Twelfth street.....	20,151 36
6,832	Schiller street.....	North Wells street.....	Sedgwick street.....	5,235 30
6,833	Cottage Grove avenue.....	Twenty-second street.....	Thirtieth street.....	30,108 37
6,837	Alley.....	Robey street.....	Hoyle avenue, bet. Washington F'y'd and Park av	1,945 55
6,844	Milwaukee avenue.....	North avenue.....	Western avenue.....	20,680 18
6,845	West Van Buren street.....	Western avenue.....	California avenue.....	18,865 88
6,849	Alley.....	Ann street.....	Elizabeth st., bet. W. Madison st. and Washington F'd	1,742 52
6,850	Honore street.....	West Adams street.....	West Harrison street.....	11,242 80
6,851	Alley.....	Eighteenth street.....	Twentieth st., bet. Indiana ave. and Prairie ave.	7,698 97
6,852	Peoria street.....	West Madison street.....	West Randolph street.....	6,457 20
6,855	Indiana avenue.....	Thirtieth street.....	Douglas avenue.....	16,876 33
6,856	Carroll avenue.....	Ashland avenue.....	Leavitt street.....	33,243 89
6,858	West Quincy street.....	Desplaines street.....	Halsted street.....	6,342 55
6,861	Robey street.....	Ogden avenue.....	West Polk street.....	6,019 75
6,862	Robey street.....	West Chicago avenue.....	West Division street.....	22,987 00
6,882	Twenty-fourth street.....	Hanover street.....	Butler street.....	4,850 78
6,888	Sanger street.....	Archer avenue.....	Twenty-sixth street.....	12,051 05
6,890	Wentworth avenue.....	Thirty-third street.....	Egan avenue.....	26,677 41
6,892	Austin avenue.....	Ashland avenue.....	Hoyle avenue.....	24,466 86
6,894	Clarkson Court.....	Washington Boulevard.....	West Lake street.....	3,439 15

## STATEMENT OF ASSESSMENTS FOR WOODEN BLOCK PAVEMENT.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,896	South Alley.....	Block 2.....	Union Park Add. to Chicago...	\$ 823 76
6,933	Mohawk street.....	North avenue.....	Garfield avenue.....	29,479 27
6,934	Hurlbut street.....	North avenue.....	Fullerton avenue.....	30,453 34
6,935	Tell place.....	Milwaukee avenue.....	Ashland avenue.....	9,215 27
6,936	Clinton street.....	W. Harrison street.....	Maxwell street.....	19,278 24
6,979	Seeley avenue.....	W. Madison street.....	West Van Buren street.....	15,368 13
6,989	W. Twelfth street.....	Blue Island avenue.....	Ashland avenue.....	14,284 02
6,990	Alley.....	Twenty-first street.....	Twenty-second street bet. Indiana av. & Prairie av.	1,574 38
6,991	Keith street.....	West Huron street.....	West Chicago avenue.....	4,374 23
6,997	Robey street.....	West Indiana street.....	West Chicago avenue.....	16,652 70
7,000	Wilcox avenue.....	Western avenue.....	Rockwell street.....	10,304 18
7,001	Elm street.....	Dearborn avenue.....	North State street.....	2,366 32
7,002	Indiana avenue.....	Eighteenth street.....	Twenty-second street.....	9,939 40
7,003	Thirty-third street.....	South Park avenue.....	Cottage Grove avenue.....	10,373 95
7,008	Cicero court.....	West Jackson street.....	West Van Buren street.....	3,197 15
7,014	Kendall place.....	Morgan street.....	Aberdeen street.....	2,767 56
7,017	Judd street.....	Canal street.....	Jefferson street.....	6,055 88
7,018	Elm street.....	North Clark street.....	La Salle avenue.....	2,750 16
7,019	Elston avenue.....	West Division street.....	100 North Wade street.....	9,616 25
7,020	Fulton street.....	Ada street.....	Ashland avenue.....	11,043 58
7,021	Fulton street.....	Sangamon street.....	Ada street.....	23,135 26
7,022	Alley.....	Eighteenth street.....	Twelfth street bet. State street & Wabash avenue.	3,908 79
7,024	Lincoln place.....	Garfield avenue.....	Webster avenue.....	3,932 11
7,030	Temple street.....	West Huron street.....	West Chicago avenue.....	5,017 75
7,031	North Alley.....	Block 1.....	Wright's Addition to Chicago...	727 00
7,032	Boone street.....	DeKalb street.....	Leavitt street.....	1,283 27
7,033	Alley.....	West Madison street.....	Washington boulevard, bet. Halsted & Green streets	876 41
7,035	Morgan street.....	Milwaukee avenue.....	West Chicago avenue.....	5,726 87
7,036	Lexington street.....	DeKalb street.....	Leavitt street.....	6,379 68
7,037	Hobbie street.....	Crosby street.....	Larrabee street.....	3,196 52

7,038	Crosby street.....	Hobbie street.....	Division street.....	8,952 92
7,040	Wabash avenue.....	Twelfth street.....	Sixteenth street.....	20,879 16
7,041	West Polk street.....	Halsted street.....	Centre avenue.....	17,203 52
7,042	West Huron street.....	Ashland avenue.....	Western avenue.....	47,247 50
7,043	West Polk street.....	Loomis street.....	Robey street.....	42,209 26
7,044	Wabash avenue.....	Sixteenth street.....	Twenty-second street.....	20,670 74
7,046	Dashiel street.....	Twenty-sixth street.....	Thirty-first street.....	31,331 95
7,047	Owasco street.....	Western avenue.....	West terminus.....	2,574 80
7,049	Lytle street.....	West Taylor street.....	West Twelfth street.....	3,926 86
7,051	Langley avenue.....	Thirty-seventh street.....	Egan avenue.....	8,113 25
7,052	Warren avenue.....	C. & N. W. Ry.....	Sacramento avenue.....	13,551 78
7,053	Belden avenue.....	North Clark street.....	Hurlbut street.....	3,620 00
7,055	Fulton street.....	Western avenue.....	P. C. & St. L. R. R.....	11,445 11
7,059	Burton place.....	North Clark street.....	Dearborn avenue.....	2,450 95
7,072	Brown street.....	West Twelfth street.....	West Fourteenth street.....	8,016 40
7,100	Sedgwick street.....	Chicago avenue.....	Division street.....	14,515 88
7,183	Noble street.....	West Kinzie street.....	West Indiana street.....	5,986 30
7,184	Throop street.....	West Taylor street.....	Blue Island avenue.....	35,733 82
7,188	Morgan place.....	Morgan street.....	Aberdeen street.....	2,534 10
7,189	Sedgwick street.....	Erie street.....	Chicago avenue.....	5,983 34
7,190	Superior street.....	North Franklin street.....	Western terminus.....	19,407 27
7,191	West Thirtieth street.....	Blue Island avenue.....	Ashland avenue.....	20,246 32
7,192	Alley.....	Dearborn avenue.....	State street, bet. Michigan & Illinois streets.....	1,368 56
7,230	Rush street.....	North Water street.....	Illinois street.....	3,865 20
7,235	North Wells street.....	Chicago river.....	Chicago avenue.....	18,431 65
7,236	North Wells street.....	Chicago avenue.....	Division street.....	15,379 18
7,237	Miller street.....	West Harrison street.....	West Taylor street.....	3,528 15
7,238	Twenty-sixth street.....	State street.....	Westworth avenue.....	13,163 77
7,241	McReynolds street.....	Paulina street.....	Wood street.....	6,897 60
7,242	Robey street.....	West Harrison street.....	Ogden avenue.....	2,901 86
7,243	Twenty-ninth street.....	Groveland avenue.....	Lake Park avenue.....	2,125 06
7,244	Alley.....	Block 3, C. T. Sub. of W. & W. 4 & N. E. 4 Sec. 17, T. 39, N. R. 14 E.....	West Washington st., bet. Clinton & Jefferson sts.....	3,902 04
7,343	Alley.....	West Madison street.....	West Twelfth street.....	1,294 40
7,344	Newberry avenue.....	West Twelfth street.....	Maxwell street.....	5,102 84
7,345	Alley.....	West Madison street.....	West Washington street, bet. Canal & Clinton sts.....	1,258 58
7,346	Marshfield avenue.....	West Harrison street.....	West Polk street.....	8,761 50

## STATEMENT OF ASSESSMENTS FOR WOODEN BLOCK PAVEMENT.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,896	South Alley.....	Block 2.....	Union Park Add. to Chicago....	823 76
6,933	Mohawk street.....	North avenue.....	Garfield avenue.....	29,479 27
6,934	Huribut street.....	North avenue.....	Fullerton avenue.....	30,453 34
6,935	Tell place.....	Milwaukee avenue.....	Ashland avenue.....	9,215 27
6,936	Clinton street.....	W. Harrison street.....	Maxwell street.....	19,278 24
6,979	Seeley avenue.....	W. Madison street.....	West Van Buren street.....	15,368 13
6,989	W. Twelfth street.....	Blue Island avenue.....	Ashland avenue.....	14,284 02
6,990	Alley.....	Twenty-first street.....	Twenty-second street bet. Indiana av. & Prairie av.	1,574 38
6,991	Keith street.....	West Huron street.....	West Chicago avenue.....	4,374 23
6,997	Robey street.....	West Indiana street.....	West Chicago avenue.....	16,652 70
7,000	Wilcox avenue.....	Western avenue.....	Rockwell street.....	10,304 18
7,001	Elm street.....	Dearborn avenue.....	North State street.....	2,366 32
7,002	Indiana avenue.....	Eighteenth street.....	Twenty-second street.....	9,939 40
7,003	Thirty-third street.....	South Park avenue.....	Cottage Grove avenue.....	10,373 95
7,008	Cicero court.....	West Jackson street.....	West Van Buren street.....	3,197 15
7,014	Kendall place.....	Morgan street.....	Aberdeen street.....	2,707 56
7,017	Judd street.....	Canal street.....	Jefferson street.....	6,055 88
7,018	Elm street.....	North Clark street.....	La Salle avenue.....	2,750 16
7,019	Elston avenue.....	West Division street.....	100 North Wade street..	9,616 25
7,020	Fulton street.....	Ada street.....	Ashland avenue.....	11,043 58
7,021	Fulton street.....	Sangamon street.....	Ada street.....	23,135 26
7,022	Alley.....	Eighteenth street.....	Twelfth street bet. State street & Wabash avenue.	3,908 79
7,024	Lincoln place.....	Garfield avenue.....	Webster avenue.....	3,932 11
7,030	Temple street.....	West Huron street.....	West Chicago avenue.....	5,017 75
7,031	North Alley.....	Block 1.....	Wright's Addition to Chicago..	727 60
7,032	Boone street.....	De Kalb street.....	Leavitt street.....	1,283 27
7,033	Alley.....	West Madison street.....	Washington boulevard, bet. Halsted & Green streets	876 91
7,035	Morgan street.....	Milwaukee avenue.....	West Chicago avenue.....	5,726 87
7,036	Lexington street.....	De Kalb street.....	Leavitt street.....	6,379 68
7,037	Hobbie street.....	Crosby street.....	Larrabee street.....	3,196 52

7,038	Crosby street.....	Hobbie street.....	Division street.....	8,952 92
7,040	Wabash avenue.....	Twelfth street.....	Sixteenth street.....	20,879 16
7,041	West Polk street.....	Halsted street.....	Centre avenue.....	17,203 52
7,042	West Huron street.....	Ashland avenue.....	Western avenue.....	47,247 50
7,043	West Polk street.....	Loomis street.....	Robey street.....	42,239 26
7,044	Wabash avenue.....	Sixteenth street.....	Twenty-second street.....	20,070 74
7,046	Dashiel street.....	Twenty-sixth street.....	Thirty-first street.....	31,331 95
7,047	Owasco street.....	Western avenue.....	West terminus.....	2,574 80
7,049	Lytle street.....	West Taylor street.....	West Twelfth street.....	3,926 86
7,051	Langley avenue.....	Thirty-seventh street.....	Egan avenue.....	8,113 25
7,052	Warren avenue.....	C. & N. W. R. Y.....	Sacramento avenue.....	13,551 78
7,053	Belden avenue.....	North Clark street.....	Hurlbut street.....	3,620 00
7,055	Fulton street.....	Western avenue.....	P. C. & St. L. R. R.....	11,445 11
7,059	Burton place.....	North Clark street.....	Dearborn avenue.....	2,450 95
7,072	Brown street.....	West Twelfth street.....	West Fourteenth street.....	8,016 40
7,100	Sedgwick street.....	Chicago avenue.....	Division street.....	14,515 88
7,183	Noble street.....	West Kinzie street.....	West Indiana street.....	5,986 30
7,184	Throop street.....	West Taylor street.....	Blue Island avenue.....	35,733 82
7,188	Morgan place.....	Morgan street.....	Aberdeen street.....	2,534 10
7,189	Sedgwick street.....	Erie street.....	Chicago avenue.....	5,983 34
7,190	Superior street.....	North Franklin street.....	Western terminus.....	19,407 27
7,191	West Thirteenth street.....	Blue Island avenue.....	Ashland avenue.....	20,246 32
7,192	Alley.....	Dearborn avenue.....	State street, bet. Michigan & Illinois streets.....	1,368 56
7,230	Rush street.....	North Water street.....	Illinois street.....	3,865 20
7,235	North Wells street.....	Chicago river.....	Chicago avenue.....	18,431 65
7,236	North Wells street.....	Chicago avenue.....	Division street.....	15,379 18
7,237	Miller street.....	West Harrison street.....	West Taylor street.....	3,528 15
7,238	Twenty-sixth street.....	State street.....	Westworth avenue.....	12,163 77
7,241	McReynolds street.....	Paulina street.....	Wood street.....	6,897 60
7,242	Robey street.....	West Harrison street.....	Ogden avenue.....	2,901 86
7,243	Twenty-ninth street.....	Groveland avenue.....	Lake Park avenue.....	2,125 06
7,244	Alley.....	Block 5, C. T. Sub. of W. & W. & of N. E. & S. Sec.	West Washington st., bet. Clinton & Jefferson sts.....	3,902 04
7,343	Alley.....	West Madison street.....	Maxwell street.....	1,294 40
7,344	Newberry avenue.....	West Twelfth street.....	West Washington street, bet. Canal & Clinton sts.....	5,102 84
7,345	Alley.....	West Madison street.....	West Polk street.....	1,258 58
7,346	Marshfield avenue.....	West Harrison street.....		8,761 50

## STATEMENT OF ASSESSMENTS FOR WOODEN BLOCK PAVEMENT.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
7,364	Ann street.....	West Lake street.....	Fulton street.....	2,566 32
7,366	Lincoln street.....	West Congress street.....	West Polk street.....	5,310 46
7,375	Twenty-seventh street.....	South Park avenue.....	Its eastern terminus.....	3,742 08
7,378	Alley.....	W. Madison street.....	W. Washington st., bet. Jefferson & Desplaines sts.	1,433 32
7,379	Alley.....	Block 2.....	Sawyer's addition to Chicago.....	1,535 95
7,382	Alley.....	In Assessor's div. of S. W. 4, sec. 8, T. 39, N. R. 14, E. 1.	Bet. W. Randolph & W. Lake st.	761 80
7,384	South alley.....	Block 47.....	Carpenter's add. to Chicago.....	581 34
7,385	Alley.....	Block 28.....	Carpenter's add. to Chicago.....	320 85
7,386	North alley.....	Block 5.....	McNeil's subdiv. and Blocks 6, 7 & 8 Wright's add.	1,153 76
7,387	South alley.....	Block 5.....	McNeil's subdiv. Blocks 6, 7 & 8 Wright's add.	1,380 48
7,388	Wendell street.....	North Wells street.....	Its eastern terminus.....	1,765 91
7,389	Alley.....	Rundell place.....	Church st., bet. Morgan and Aberdeen street.....	502 00
7,408	Sigel street.....	Sedgwick street.....	Huribut street.....	4,814 12
7,409	Kramer street.....	Jefferson street.....	Halsted street.....	6,186 80
7,410	Dussold street.....	Jefferson street.....	Halsted street.....	6,142 15
7,411	Chestnut street.....	North Clark street.....	North State street.....	4,586 58
7,428	South La Salle street.....	Thirty-first street.....	Egan avenue.....	53,129 00
7,429	Douglas avenue.....	L. S. & M. S. R. R.....	Halsted street.....	49,049 46
7,430	Douglas avenue.....	S. fork S. Branch Chicago River.....	Archer avenue.....	57,523 08
7,433	West Taylor street.....	Ashland avenue.....	Ogden avenue.....	49,184 77
7,434	West Ohio street.....	Milwaukee avenue.....	Ashland avenue.....	44,475 73
7,435	Church court.....	Morgan street.....	Aberdeen street.....	2,536 52
Total.....				\$1,707,346 48

STATEMENT OF ASSESSMENTS FOR MISCELLANEOUS STREET AND ALLEY IMPROVEMENTS.

SPECIAL ASSESSMENT DEPARTMENT.

221

Warrant No.	IMPROVEMENT.	NAME OF STREET.	FROM.	TO.	AMOUNT OF IMPROVEMENT.
6,648	Sheet asphalt.	Roadway of Alline square.	W. Harrison street.	Curley st., bet. Blue Island av. and Silver st.	\$5,582 69
6,654	Grading and planking.	Alley	Center avenue.	Lytle street.	1,013 20
6,658	Curbing and filling.	Arthington street.	Blue Island avenue.	Ashland avenue.	1,521 25
6,659	Curbing and filling.	Hastings street.	W. Fourteenth street.	Wright street.	15,027 28
6,661	Curbing and filling.	Johnson street.	Erie street.	Chicago avenue.	1,787 46
6,666	Graveling.	Rush street.	University place.	College place.	1,881 68
6,675	Macadam.	E. & Rhodes avenue.	Twenty-sixth street.	Twenty-seventh street.	2,564 73
6,676	Macadam.	S. Dearborn street.	Desplaines street.	Haisted street.	4,452 49
6,679	Curbing and grading.	Sebor street.	W. Twelfth street.	W. Fourteenth street.	2,178 47
6,707	Curbing and filling.	Loomis street.	W. Twelfth street.	Maxwell street.	7,732 40
6,711	Curbing and filling.	Newberry avenue.	State street.	Clark street.	3,034 64
6,780	Granite.	Madison street.	Harrison street.	Twelfth street.	11,841 94
6,818	Granite.	Wabash avenue.	Blue Island avenue.	Ashland avenue.	62,510 70
6,842	Curbing and filling.	Thirteenth place.	Randolph street.	S. Water street.	17,735 72
6,843	Granite.	Dearborn street.	Chicago river.	Chicago avenue.	21,082 83
6,853	Granite.	N. Clark street.	Central avenue.	S. Branch Chicago river.	59,516 20
6,859	Granite.	Lake street.	Thirty-third street.	Douglas avenue.	63,213 83
6,886	Prairie avenue.	Langley avenue.	Thirty-seventh street.	Egan avenue.	11,841 69
6,897	Macadam.	Alley	Fourteenth street.	Nineteenth st., bet. Wabash and Michigan ave.	8,923 16
6,898	Granite.	Sherman street.	Madison street.	Van Buren street.	13,408 40
6,980	Granite.	Market street.	State street.	Adams street.	7,777 05
6,981	Granite.	Jackson street.	Clark street.	Fifth avenue.	22,850 26
6,982	Granite.	Monroe street.	Block 4.	Market street.	29,344 62
6,983	Granite.	Alley	Wabash avenue.	Fort Dearborn Add. to Chicago	32,006 16
6,984	Granite.	Van Buren street.	Lake street.	Fifth avenue	7,730 50
6,985	Granite.	Franklin street.	State street.	Adams street.	24,100 41
6,986	Granite.	Adams street.	Clark street.	S. Branch Chicago river.	57,614 45
6,987	Granite.	S. Water street.		Fifth avenue.	35,992 24
6,988	Granite.				18,785 80

## STATEMENT OF ASSESSMENTS FOR MISCELLANEOUS STREET AND ALLEY IMPROVEMENTS.

Warrant No.	IMPROVEMENT.	NAME OF STREET.	FROM	TO	AMOUNT OF IMPROVEMENT.
6,998	Curbing and filling	Winthrop place.	W. Polk street.	W. Taylor street.	\$3,067 76
6,999	Curbing and filling.	Lafin street.	W. Twelfth street.	W. Fourteenth street.	5,404 21
7,004	Curbing and filling.	Warren avenue.	C. & N. W. R. R.	Homan avenue.	15,522 66
7,005	Granite.	Alley.	Block 69.	Original town.	401 93
7,007	Curbing and filling.	Walnut street.	Albany avenue.	Kedzie avenue.	1,412 20
7,009	Asphalt blocks.	Wabash avenue.	Thirty-seventh street	Egan avenue.	30,330 85
7,034	Curbing and filling.	Nebraska street.	Loomis street.	Ashland avenue.	4,911 48
7,048	Granite.	N. and S. alley.	Block 95.	School section.	949 38
7,050	Asphalt blocks.	Alley.	Sixteenth street.	Eighteenth street.	4,954 28
7,185	Curbing and filling.	Thirteenth place.	Blue Island avenue.	Waller street.	2,090 55
7,186	Curbing and filling.	W. Thirteenth street	Blue Island avenue.	Waller street.	3,525 85
7,187	Curbing and filling.	Waller street.	W. Twelfth street.	W. Fourteenth street.	6,167 94
7,193	Curbing and filling.	Nixon street.	W. Polk street.	W. Taylor street.	1,119 50
7,231	Grading and plankng.	Alley.	Pine street.	St. Clair st., bet. Illinois and Indiana sts.	527 62
7,233	Granite.	Couch place.	Fifth avenue.	Franklin street.	2,780 97
7,234	Granite.	Franklin street.	Madison street.	Adams street.	14,942 30
7,237	Curbing and filling.	Miller street.	W. Harrison.	W. Taylor street.	3,528 15
7,245	Curbing and filling.	Newberry avenue.	W. Fourteenth st.	Wright street.	892 76
7,316	Macadam.	Prairie avenue.	Douglas avenue.	Egan avenue.	26,289 37
7,339	Curbing and filling.	Lytle street.	Gilpin place.	W. Taylor street.	2,079 80
7,365	Curbing and filling.	York street.	Lafin street.	Ashland avenue.	1,764 15
7,367	Curbing and filling.	W. Fifteenth street.	Canal street.	Halsted street.	5,264 85
7,373	Curbing and filling.	Wood street.	W. Twelfth street.	W. Fifteenth street.	10,064 95
7,374	Curbing and filling.	Henry street.	Blue Island avenue.	Ashland avenue.	25,129 06
7,376	Curbing and filling.	Paulina street.	W. Twelfth street.	W. Fifteenth street.	17,349 90
7,377	Curbing and filling.	Henry street.	Morgan street.	Blue Island avenue.	15,744 35
7,380	Curbing and filling.	Morgan street.	W. Fourteenth street.	Wright street.	1,689 88
7,381	Curbing and filling.	Brown street.	W. Fourteenth street	Wright street.	1,705 54
7,383	Curbing and filling.	Margaret street.	W. Fourteenth street	W. Fifteenth street.	6,648 73

7,390	Curbing and filling.....	Gurley street.....	Blue Island avenue..	May street.....	3,176 46
7,388	Curbing and filling.....	Nebraska street.....	Throop street.....	Loomis street.....	1,877 48
7,437	Curbing and filling.....	W. Fifteenth street..	Ashland avenue..	Wood street.....	13,553 71
Total.....					\$788,023 88

## STATEMENT OF ASSESSMENTS FOR LAYING PRIVATE DRAINS.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
				\$
6,500	Archer avenue.....	Halsted street.....	South Branch Chicago River...	1,980 00
6,502	Chestnut street.....	North Wells street.....	Pine street.....	253 00
6,504	Western avenue.....	West Van Buren.....	Ogden avenue.....	3,007 00
6,519	Oakley avenue.....	West Adams street.....	Ogden avenue.....	2,269 00
6,562	Warren avenue.....	C. & N. W. Ry. tracks.....	California avenue.....	1,275 75
6,563	West Van Buren street.....	Campbell avenue.....	Kedzie avenue.....	3,921 50
6,564	Sangamon street.....	Milwaukee avenue.....	West Chicago avenue.....	313 50
6,568	Lafayette street.....	West Taylor street.....	West Twelfth street.....	126 00
6,569	West Monroe street.....	Throop street.....	Loomis street.....	276 00
6,570	Miller street.....	West Harrison street.....	West Taylor street.....	342 00
6,571	Thirty-seventh street.....	Cottage Grove avenue.....	Vincennes avenue.....	270 00
6,612	South La Salle street.....	Twenty-second street.....	Thirty-first street.....	2,817 50
6,613	West Huron street.....	Ashland avenue.....	Western avenue.....	6,204 50
6,614	Milwaukee avenue.....	North avenue.....	Western avenue.....	5,141 50
6,615	Albion street.....	West Sixteenth street.....	West Nineteenth street.....	416 00
6,616	West Eighteenth street.....	Ashland avenue.....	Wood street.....	752 00
6,617	Thirtieth place.....	Waller street.....	Ashland avenue.....	1,056 00
6,618	Newberry avenue.....	West Twelfth street.....	Maxwell street.....	264 00
6,619	Noble street.....	West Kinzie street.....	West Indiana street.....	209 00
6,620	Morgan street.....	West Washington street.....	Randolph street.....	322 00
6,621	Morgan street.....	West Indiana street.....	Milwaukee avenue.....	348 50
6,622	Johnson street.....	West Fourteenth.....	Wright street.....	171 00
6,623	West Thirtieth street.....	Blue Island avenue.....	Waller street.....	296 00
6,624	West Taylor street.....	Ogden avenue.....	Campbell avenue.....	1,181 25
6,625	Grenshaw street.....	Oakley avenue.....	Campbell avenue.....	496 00
6,626	Waller street.....	West Twelfth street.....	West Fourteenth street.....	396 00
6,627	West Monroe street.....	Ashland avenue.....	Robey street.....	152 80
6,669	Wood street.....	West Harrison street.....	West Twelfth street.....	1,534 50
6,670	Robey street.....	Ogden avenue.....	Polk street.....	90 00
6,671	West Polk street.....	Ogden avenue.....	Robey street.....	153 00

6,672	Robey street.....	West Division street.....	Bryson street.....	572 00
6,673	Bryson street.....	Lincoln street.....	Robey street.....	382 50
6,697	West Polk street.....	Halsted street.....	Centre avenue.....	696 00
6,698	West Ohio street.....	Desplaines street.....	Ashland avenue.....	2,074 50
6,699	Loomis street.....	West Twelfth street.....	Blue Island avenue.....	480 00
6,700	Clarkson court.....	Washington Boulevard.....	West Lake street.....	190 00
6,701	West Twentieth street.....	Halsted street.....	Centre avenue.....	1,136 00
6,702	Seymour street.....	West Lake street.....	P. C. & St. L. R. R.....	648 00
6,703	West Nineteenth street.....	Centre avenue.....	Blue Island avenue.....	204 00
6,704	West Quincy street.....	Desplaines street.....	Halsted street.....	1,056 00
6,705	Liberty street.....	Jefferson street.....	Halsted street.....	800 00
6,713	West Indiana street.....	Halsted street.....	Ashland avenue.....	598 00
6,770	Law avenue.....	West Harrison street.....	West Polk street.....	508 00
6,775	Rush street.....	Erie street.....	Chicago avenue.....	175 00
6,776	Vine street.....	North avenue.....	Willow street.....	231 00
6,777	Centre street.....	Halsted street.....	Racine avenue.....	1,950 00
6,809	Wright street.....	Canal street.....	Halsted street.....	380 00
6,810	Plum street.....	Loomis street.....	Lafin street.....	342 00
6,811	Throop street.....	West Taylor street.....	Blue Island avenue.....	432 00
6,812	Seeley avenue.....	West Madison street.....	West Van Buren street.....	646 00
6,813	Douglas avenue.....	Halsted street.....	S. fr. S. Branch Chicago River.....	2,630 00
6,814	Wallace street.....	Archer avenue.....	Thirty-first street.....	2,560 00
6,815	Wade street.....	Elston avenue.....	Crittenden street.....	544 00
6,836	Crosby street.....	Division street.....	Larrabee street.....	1,134 00
6,834	Sangamon street.....	West Monroe street.....	West Harrison street.....	395 00
6,855	Twenty-fourth street.....	State street.....	Butler street.....	864 00
6,836	Butler street.....	Archer avenue.....	Twenty-fourth street.....	414 00
6,841	Clinton street.....	West Madison street.....	Maxwell street.....	1,260 00
6,846	Robey street.....	West Chicago avenue.....	West Division street.....	2,765 00
6,847	Robey street.....	West Indiana street.....	West Chicago avenue.....	266 50
6,848	Robey street.....	West Polk street.....	West Twelfth street.....	1,264 00
6,854	Austin avenue.....	Ashland avenue.....	Western avenue.....	2,457 50
6,878	Wentworth avenue.....	Thirty-third street.....	Egan avenue.....	4,384 50
6,885	South La Salle street.....	Thirty-first street.....	Egan avenue.....	3,850 00
6,887	Prairie avenue.....	Thirty-third street.....	Douglas avenue.....	1,640 00
6,889	Hastings street.....	Blue Island avenue.....	Ashland avenue.....	992 00

## STATEMENT OF ASSESSMENTS FOR LAYING PRIVATE DRAINS.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,895	Wallace street.....	Thirty-first street.....	Egan avenue.....	\$ 4,650 00
6,897	Prairie avenue.....	Douglas avenue.....	Egan avenue.....	2,821 50
6,898	West Taylor street.....	Ashland avenue.....	Ogden avenue.....	2,282 00
6,899	West Polk street.....	Loomis street.....	Robey street.....	2,278 50
6,940	Warren avenue.....	Calif. rnia avenue.....	Homan avenue.....	4,742 50
6,941	Dashiel street.....	Twenty-sixth street.....	Thirty-first street.....	1,216 00
6,942	Fifth avenue.....	Twenty-sixth street.....	Thirty-first street.....	1,312 00
6,945	Wisconsin street.....	Sedgwick street.....	Larabee street.....	273 00
6,946	Wilcox avenue.....	Western avenue.....	Rockwell street.....	565 00
6,947	Portland avenue.....	Twenty-sixth street.....	Archer avenue.....	416 00
6,948	Langley avenue.....	Thirty-seventh street.....	Egan avenue.....	540 00
6,949	Wood street.....	North avenue.....	WestClybourn place.....	1,360 00
6,950	Sanger street.....	Archer avenue.....	Twenty-sixth street.....	416 00
6,951	West Twelfth street.....	Blue Island avenue.....	Ashland avenue.....	209 00
6,952	Lafin street.....	West Twelfth street.....	West Fourteenth street.....	204 00
6,953	West Indiana street.....	Ashland avenue.....	Hoyne avenue.....	296 00
6,954	Mohawk street.....	North avenue.....	Clybourn avenue.....	893 00
6,957	Douglas avenue.....	S. fork S. branch Chicago River	Western avenue.....	5,719 50
6,963	Sebor street.....	Desplaines street.....	Halsted street.....	635 00
6,964	Bunker street.....	Canal street.....	Halsted street.....	486 00
6,965	Winthrop place.....	West Polk street.....	West Taylor street.....	285 00
6,966	Nebraska street.....	Loomis street.....	Ashland avenue.....	528 00
6,967	Temple street.....	West Huron street.....	West Chicago avenue.....	232 00
7,045	Chestnut street.....	La Salle street.....	Western terminus.....	540 00
7,054	Fulton street.....	Sangamon street.....	Ada street.....	1,315 00
7,056	Fulton street.....	Western avenue.....	P. C. & St. L. R. R.....	685 00
7,109	Cicero court.....	West Jackson street.....	West Van Buren street.....	336 00
7,432	Douglas avenue.....	L. S. & M. S. R. R.....	Halsted street.....	3,565 00
Total.....				\$ 116,837 80

# STATEMENT OF ASSESSMENTS FOR LAYING WATER SERVICE PIPES.

## SPECIAL ASSESSMENT DEPARTMENT.

227

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,486	Morgan street.....	West Harrison street.....	West Twelfth street.....	544 60
6,497	Indiana avenue.....	Twenty-second street.....	Twenty-ninth street.....	1,213 65
6,498	Indiana avenue.....	Eighteenth street.....	Twenty-second street.....	1,113 15
6,499	North Clark street.....	Chicago river.....	Chicago avenue.....	464 00
6,501	Morgan street.....	West Fourteenth street.....	West Twenty-second street.....	2,940 45
6,500	Bunker street.....	Canal street.....	Halsted street.....	245 70
6,501	West Van Buren street.....	Western avenue.....	Kedzie avenue.....	5,878 95
6,505	Miller street.....	West Harrison street.....	West Taylor street.....	425 20
6,506	Lafayette street.....	West Taylor street.....	West Twelfth street.....	312 00
6,507	Peoria street.....	West Madison street.....	West Randolph street.....	174 50
6,572	Thirty-seventh street.....	Cottage Grove avenue.....	Vincennes avenue.....	175 80
6,573	West Monroe street.....	Throop street.....	Loomis street.....	313 60
6,574	West Eighteenth street.....	Ashland avenue.....	Wood street.....	303 00
6,575	Allport street.....	West Sixteenth street.....	West Nineteenth street.....	402 70
6,576	Fulton street.....	Ada street.....	Ashland avenue.....	367 50
6,577	Hunt street.....	Elizabeth street.....	North Centre avenue.....	690 50
6,578	Ann street.....	West Lake street.....	Carroll avenue.....	284 50
6,579	Arthington street.....	Centre avenue.....	Lytle street.....	114 00
6,580	Warren avenue.....	C. & N. W. R. R.....	California avenue.....	1,813 00
6,581	Law avenue.....	West Harrison street.....	West Polk street.....	444 45
6,582	West Polk street.....	Halsted street.....	Centre avenue.....	641 20
6,583	Clinton street.....	West Madison street.....	Maxwell street.....	941 50
6,584	Milwaukee avenue.....	North avenue.....	Western avenue.....	5,319 20
6,585	Peoria street.....	Austin avenue.....	West Indiana street.....	126 35
6,586	Aldine Square.....	Indiana street.....	Superior street.....	165 00
6,587	St. Clair street.....	Halsted street.....	Racine avenue.....	677 95
6,588	Centre street.....	Erie street.....	Chicago avenue.....	2,571 80
6,589	Rush street.....	Scott street.....	Schiller street.....	483 45
6,590	Astor street.....	Ashland avenue.....	Western avenue.....	404 30
6,628	Austin avenue.....	Ashland avenue.....	Western avenue.....	2,898 50

## STATEMENT OF ASSESSMENTS FOR LAYING WATER SERVICE PIPES.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,629	Vine street.....	North avenue.....	Willow street.....	\$ 441 20
6,630	West Taylor street.....	Ogden avenue.....	Campbell avenue.....	1,794 20
6,631	West Thirtieth street.....	Blue Island avenue.....	Waller street.....	451 25
6,632	Thirtieth place.....	Blue Island avenue.....	Ashland avenue.....	8,280 20
6,633	Gresham street.....	Oakley avenue.....	Campbell avenue.....	487 00
6,634	Waller street.....	West Twelfth street.....	West Fourteenth street.....	728 40
6,635	Thirteenth place.....	Waller street.....	Blue Island avenue.....	462 20
6,636	Johnson street.....	West Fourteenth street.....	Wright street.....	511 00
6,637	Newberry avenue.....	West Twelfth street.....	Maxwell street.....	679 60
6,638	Noble street.....	West Kinzie street.....	West Indiana street.....	251 10
6,639	Morgan street.....	West Indiana street.....	Milwaukee avenue.....	755 80
6,640	Morgan street.....	Washington boulevard.....		280 50
6,641	West Indiana street.....	Halsted street.....	Randolph street.....	1,877 70
6,642	West Huron street.....	Ashland avenue.....	Ashland avenue.....	4,496 00
6,643	South La Salle street.....	Twenty-second street.....	Thirty-first street.....	5,313 00
6,644	Maple street.....	Dearborn avenue.....	North State street.....	130 20
6,690	Robey street.....	Bryson street.....	Division street.....	485 80
6,691	Loomis street.....	West Twelfth street.....	West Fourteenth street.....	363 90
6,693	West Polk street.....	Ogden avenue.....	Robey street.....	131 85
6,694	Wallace street.....	Archer avenue.....	Thirty-first street.....	3,354 45
6,695	Seymour street.....	West Lake street.....	P. C. & St. L. R. R.....	651 00
6,696	Bryson street.....	Lincoln street.....	Robey street.....	442 70
6,714	West Twentieth street.....	Halsted street.....	Centre avenue.....	1,703 95
6,715	Loomis street.....	West Fourteenth street.....	Blue Island avenue.....	508 60
6,716	Carpenier street.....	West Madison street.....	Washington boulevard.....	141 20
6,717	Liberty street.....	Jefferson street.....	Halsted street.....	881 20
6,718	Clarkson court.....	Washington boulevard.....	West Lake street.....	167 25
6,719	Fulton street.....	Sangamon street.....	Ada street.....	236 80
6,720	Sedgwick street.....	Chicago avenue.....	Division street.....	331 00
6,769	Thirty-third street.....	South Park avenue.....	Cottage Grove avenue.....	124 70

6,778	Sebor street.....	Desplaines street.....	Halsted street.....	851 90
6,779	West Nineteenth street.....	Centre avenue.....	Blue Island avenue.....	594 00
6,792	Seeley avenue.....	West Madison street.....	West Van Buren street.....	843 20
6,793	Plum street.....	Loomis street.....	Lafin street.....	426 80
6,794	Douglas avenue.....	South fork of south branch of Chicago river.....	Archer avenue.....	8,302 80
6,795	Sedgwick street.....	Erie street.....	Chicago avenue.....	315 00
6,796	Blue Island avenue.....	Sixteenth street viaduct.....	West Twenty-second street.....	607 80
6,797	Throop street.....	West Taylor street.....	Blue Island avenue.....	390 10
6,798	Superior street.....	North Franklin street.....	Its western terminus.....	294 25
6,799	Butler street.....	Twenty-fourth street.....	Archer avenue.....	500 60
6,800	Saugamon street.....	West Monroe street.....	West Harrison street.....	448 50
6,801	Honore street.....	West Adams street.....	West Harrison street.....	390 10
6,802	Twenty-fourth street.....	Hanover street.....	Butler street.....	229 65
6,803	Keith street.....	West Huron street.....	West Chicago avenue.....	338 50
6,804	Douglas avenue.....	Halsted street.....	South fork of south branch of Chicago river.....	4,329 60
6,805	Wright avenue.....	Canal street.....	Halsted street.....	1,518 35
6,806	West Quincy street.....	Desplaines street.....	Halsted street.....	1,251 00
6,807	Wood street.....	West Harrison street.....	West Twelfth street.....	2,314 40
6,808	Wade street.....	Elston avenue.....	Crittenden street.....	548 75
6,838	Indiana avenue.....	Eighteenth street.....	Twenty-ninth street.....	2,049 65
6,839	Mohawk street.....	Clybourn avenue.....	North avenue.....	1,861 10
6,840	Prairie avenue.....	Thirty-third street.....	Douglas avenue.....	1,622 70
6,857	Vernon avenue.....	Twenty-ninth street.....	Thirtieth street.....	229 80
6,860	West Ohio street.....	Desplaines street.....	Ashland avenue.....	3,520 00
6,879	South La Salle street.....	Thirty-first street.....	Egan avenue.....	5,205 20
6,880	Twenty fourth street.....	State street.....	Hanover street.....	1 420 00
6,881	Wentworth avenue.....	Thirty-third street.....	Egan avenue.....	5,084 00
6,893	Wallace street.....	Thirty-first street.....	Egan avenue.....	6,393 20
6,928	Cottage Grove avenue.....	Twenty-second street.....	Thirtieth street.....	464 45
6,929	West Polk street.....	Loomis street.....	Robey street.....	4,203 10
6,930	Warren avenue.....	California avenue.....	Homan avenue.....	6,277 15
6,931	West Jackson street.....	Hoyne avenue.....	Rockwell street.....	548 40
6,943	West Twelfth street.....	Blue Island avenue.....	Ashland avenue.....	391 65
6,944	Robey street.....	West Polk street.....	West Twelfth street.....	1,831 00
6,955	West Chicago avenue.....	West Chicago avenue.....	West Division street.....	3,971 55
6,956	West Twenty-second street.....	Ashland avenue.....	Western avenue.....	7,046 80

## STATEMENT OF ASSESSMENTS FOR LAYING WATER SERVICE PIPE.

Warrant No.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,958	Wabash avenue.....	Harrison street.....	Twenty-second street.....	\$ 6,044 00
6,959	Prairie avenue.....	Douglas avenue.....	Egan avenue.....	3,381 40
6,960	Langley avenue.....	Thirty-seventh street.....	Egan avenue.....	351 70
6,961	Dashiel street.....	Thirty-sixth street.....	Thirty-first street.....	1,568 00
6,962	West Indiana street.....	Ashland avenue.....	Hoyle avenue.....	416 40
6,968	Wisconsin street.....	Sedgwick street.....	Larrabee street.....	420 80
6,969	Larrabee street.....	Chicago avenue.....	North avenue.....	492 90
6,970	Sanger street.....	Archer avenue.....	Twenty-sixth street.....	634 60
6,971	Portland avenue.....	Twenty-sixth street.....	Archer avenue.....	746 50
6,972	Ladlin street.....	Twelfth street.....	Fourteenth street.....	433 90
6,973	Winthrop place.....	West Polk street.....	West Taylor street.....	1,132 05
6,974	Nebraska street.....	Loomis street.....	Ashland avenue.....	852 00
6,975	Temple street.....	West Huron street.....	West Chicago avenue.....	327 20
6,976	Boone street.....	De Kalb street.....	Leavitt street.....	103 50
6,977	West Taylor street.....	Ashland avenue.....	Ogden avenue.....	3,322 00
7,025	Wilcox avenue.....	Western avenue.....	Rockwell street.....	785 60
7,026	Morgan street.....	Milwaukee avenue.....	West Chicago avenue.....	322 00
7,027	Lexington street.....	De Kalb street.....	Leavitt street.....	601 60
7,028	Dayton street.....	North avenue.....	Belden avenue.....	3,023 90
7,029	Larrabee street.....	North avenue.....	Centre street.....	561 00
7,057	Fulton street.....	Western avenue.....	P. C. & St. L. R. R.....	1,243 40
7,107	Union street.....	West Kinzie street.....	West Erie street.....	339 50
7,108	Cicero court.....	West Jackson street.....	West Van Buren street.....	357 00
7,431	Douglas avenue.....	L. S. & M. S. R. R.....	Halsted street.....	4,965 30
	Total.....			172,105 35

## STATEMENT OF ASSESSMENTS FOR STREET AND ALLEY OPENINGS AND WIDENINGS.

Warrant No.	Improve ment.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,863	O	Henry street.....	Its present east terminus....	Intersection of Morgan and Wright streets.....	\$7,309 16
6,864	O	Francisco street.....	W. Jackson street.....	W. Madison street.....	17,911 00
6,865	O	Alley.....	Clybourn avenue.....	Larrabee street.....	6,729 33
6,866	O	Alley.....	Idaho street and Oakley ave.	North of Taylor street.....	332 34
6,867	O	Alley.....	Western ave. and Idaho st.	North of Taylor street.....	283 84
6,868	O	W. Seventeenth street.....	Through to Fisk street.....	.....	3,936 30
6,869	O	Spring street.....	Its present south terminus....	W. Twenty-first street.....	2,172 52
6,870	O	Alley.....	W. Jackson street.....	W. Van Buren, bet. Western and Campbell aves.....	2,636 38
6,871	O	Alley.....	Block 4.....	Davis' Add. to Chicago.....	1,144 00
6,872	O & W	Butler street.....	Douglas avenue.....	Thirty-seventh street.....	6,876 00
6,873	O	Idaho street.....	W. Taylor street.....	Alley S. of W. Taylor street.....	4,115 02
6,874	O	Alley.....	Through block 27.....	Duncan's Add. to Chicago.....	4,399 38
6,875	O	Alley.....	Oakley avenue.....	Western av. bet. Park av. & W. Lake st.....	9,291 33
6,876	Conduct'g	Shedds Park.....	.....	.....	6,181 96
6,877	O & W	Alley.....	Twenty-sixth street.....	29th st. bt. Calumet & S. Park avs	5,257 75
7,314	W	Oakley avenue.....	Thirty-fifth court.....	Thirty-sixth street.....	1,408 31
7,315	O	Hinman street.....	Ashland avenue.....	Blue Island avenue.....	12,794 22
7,412	O	Alley.....	Block 28.....	Carpenter's Add.....	1,665 52
7,413	O	Alley.....	Between Calumet and Cottage Grove avs.....	Quincy's Subdivision blocks 25, 26, 28, W. 48th st., 29th st., 30th st.	2,423 21
7,414	O	Alley.....	Spring and 27th street.....	W. of S. La Salle street.....	538 50
7,415	O	Attica street.....	Anburn street.....	Laurel street.....	5,007 85
7,426	O	Bonney avenue.....	W. Sixteenth street.....	Ogden avenue.....	8,354 27
7,427	O	Alley.....	Through to W. Taylor street	Bet. Leavitt st. and Irving ave.	2,443 43
Total.....					\$113,211 62

## STATEMENT OF ASSESSMENTS FOR LAYING PLANK SIDEWALKS.

Warrant No.	SIDE	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,438	B	Hirsch street.....	Leavitt street.....	Western avenue.....	\$ 574 61
6,439	B	West Polk street.....	Loomis street.....	Campbell avenue.....	1,905 12
6,440	B	Buena Vista place.....	Emerald avenue.....	Sanger street.....	116 80
6,441	B	Lessing street.....	West Chicago avenue.....	Front street.....	100 00
6,442	B	W B street.....	Southport avenue.....	Dominick street.....	88 00
6,443	B	Burling street.....	North avenue.....	Belden avenue.....	475 45
6,444	B	Ward street.....	Clybourn avenue.....	Fullerton avenue.....	213 20
6,445	B	Orchard street.....	North avenue.....	Fullerton avenue.....	647 50
6,446	B	Grove street.....	Orchard street.....	Larrabee street.....	194 00
6,447	B	Garfield avenue.....	North Park avenue.....	Herndon street.....	1,173 27
6,448	B	Perry street.....	Clybourn avenue.....	Fullerton avenue.....	196 40
6,449	B	Belden avenue.....	North Park avenue.....	Perry street.....	2,007 62
6,450	S	Fullerton avenue.....	Clybourn avenue.....	N. Branch Chicago River.....	399 84
6,451	B	High street.....	Webster avenue.....	Fullerton avenue.....	189 38
6,452	B	Desplaines street.....	West Harrison street.....	West Twelfth street.....	293 38
6,453	B	Fremont street.....	Centre street.....	Clay street.....	85 70
6,454	B	Thirty-second street.....	Illinois street.....	Auburn avenue.....	141 20
6,455	B	Arch street.....	Archer avenue.....	Lynan street.....	248 80
6,456	N	Douglas avenue.....	Archer avenue.....	Western avenue.....	302 40
6,457	B	Twenty-seventh street.....	State street.....	Westworth avenue.....	194 00
6,458	B	Paulina street.....	West Nineteenth street.....	Van Horn street.....	200 00
6,459	B	Fleetwood street.....	Elston avenue.....	North avenue.....	532 43
6,460	B	Albany avenue.....	West Lake street.....	West Kinzie street.....	564 06
6,461	B	West Twenty-second street.....	Western avenue.....	California avenue.....	1,641 96
6,462	B	Paulina street.....	West Lake street.....	West Chicago avenue.....	484 68
6,463	B	Walsh court.....	May street.....	Centre avenue.....	180 00
6,464	B	Milwaukee avenue.....	North avenue.....	Western avenue.....	721 13
6,465	B	Ambrose street.....	Wood street.....	Western avenue.....	714 10
6,466	B	Moore street.....	Wood street.....	Western avenue.....	855 07
6,467	B	Oakley avenue.....	West Sixteenth street.....	Bue Island avenue.....	925 74

6,468	B	Latin street.....	West Twelfth street.....	West Twenty-second street...	958 48
6,469	B	Sheffield avenue.....	Willow street.....	Centre street.....	78 40
6,470	B	Noble street.....	Milwaukee avenue.....	North avenue.....	375 35
6,479	B	Seminary avenue.....	Webster avenue.....	Fullerton avenue.....	375 23
6,480	B	North State street.....	Maple street.....	North avenue.....	955 51
6,481	B	Peoria street.....	West Randolph street.....	West Kinzie street.....	640 50
6,482	N	Grand avenue.....	Rockwell street.....	Wright place.....	103 20
6,483	S	University place.....	Rhodes avenue.....	Cottage Grove avenue.....	100 00
6,484	B	Coventry street.....	North avenue.....	Wabansia avenue.....	327 56
6,485	B	Thirty-sixth street.....	State street.....	South Dearborn street.....	147 60
6,486	B	Bonaparte street.....	Lock street.....	Arch street.....	72 40
6,487	B	Dickson street.....	Milwaukee avenue.....	Bloomington road.....	685 61
6,488	B	St. Louis avenue.....	Ogden avenue.....	Twenty-sixth street.....	1,410 25
6,489	N	Ogden avenue.....	Albany avenue.....	Mowry avenue.....	908 35
6,490	N	Harmon court.....	State street.....	Michigan avenue.....	192 58
6,491	W	South La Salle street.....	Sixteenth street.....	Twenty-second street.....	475 08
6,492	B	Bremen street.....	Leavitt street.....	West-rii avenue.....	885 64
6,493	B	West Fourteenth street.....	Stewart avenue.....	Blue Island avenue.....	3,005 94
6,503	S	Fullerton avenue.....	Southport avenue.....	Clybourn avenue.....	336 00
6,522	B	Hickory street.....	Cologne street.....	Fuller street.....	487 47
6,523	B	Jones street.....	Archer avenue.....	Douglas avenue.....	351 12
6,524	B	Union Park place.....	West Lake street.....	Arbor place.....	79 20
6,525	S	Arbor place.....	Ada street.....	Ashland avenue.....	148 18
6,534	B	Austin avenue.....	Jefferson street.....	Halsted street.....	549 70
6,535	B	Wood street.....	West Twelfth street.....	Blue Island avenue.....	809 93
6,536	B	Hart street.....	West Kinzie street.....	Austin avenue.....	136 00
6,537	B	Armitage avenue.....	Elston avenue.....	Milwaukee avenue.....	1,463 04
6,538	B	Rhine street.....	Leavitt street.....	Western avenue.....	594 59
6,539	S	West Sixteenth street.....	Canal street.....	Halsted street.....	175 20
6,540	B	West Twentieth street.....	Halsted street.....	Centre avenue.....	443 08
6,541	B	West Twentieth street.....	Ashland avenue.....	Western avenue.....	545 75
6,542	B	California avenue.....	West Madison street.....	West Twelfth street.....	1,207 12
6,543	B	Union street.....	West Sixteenth street.....	West Twenty-second street...	483 36
6,544	B	West Madison street.....	Hamlin avenue.....	Crawford avenue.....	712 25
6,545	B	Canal street.....	West Twelfth street.....	West Eighteenth street.....	932 36
6,546	B	Halsted street.....	West Twelfth street.....	S. Branch Chicago River.....	1,117 04

## STATEMENT OF ASSESSMENTS FOR LAYING PLANK SIDEWALKS.

Warrant No.	SIDE	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,547	B	Blue Island avenue.....	West Sixteenth street.....	West Twenty-first street.....	\$ 809 60
6,548	E	Wood street.....	West Taylor street.....	West Twelfth street.....	140 00
6,549	B	Ann street.....	West Randolph street.....	West Lake street.....	80 00
6,550	W	Butler street.....	Thirty-first street.....	Thirty-third street.....	383 42
6,551	B	Swift place.....	Wentworth avenue.....	Stewart avenue.....	296 19
6,552	B	Ellis avenue.....	Douglas avenue.....	Oakwood avenue.....	279 03
6,553	W	Southport avenue.....	Clybourn place.....	Clybourn avenue.....	113 20
6,554	E	Southport avenue.....	Clybourn avenue.....	Belden avenue.....	211 20
6,555	B	Douglas avenue.....	Halsted street.....	South branch Chicago river..	653 79
6,556	B	Archer avenue.....	Ashland avenue.....	Southwest boulevard.....	2,082 78
6,557	W	Kedzie avenue.....	Walnut street.....	West Kinzie street.....	233 60
6,591	S	Wright street.....	Canal street.....	Stewart avenue.....	104 00
6,592	B	West Harrison street.....	Ordgen avenue.....	Rockwell street.....	461 32
6,593	B	Ashland avenue.....	Milwaukee avenue.....	West Clybourn place.....	1,929 69
6,594	B	West Indiana street.....	Ashland avenue.....	Western avenue.....	664 24
6,595	B	Baldwin street.....	West Kinzie street.....	Austin avenue.....	126 40
6,596	B	Robey street.....	West Harrison street.....	West Twelfth street.....	818 25
6,597	B	Fulton street.....	Western avenue.....	Homan avenue.....	1,714 68
6,598	B	North Clark street.....	Division street.....	North avenue.....	570 72
6,599	B	Warren avenue.....	Francisco street.....	Albany avenue.....	299 60
6,600	N	Lawrence avenue.....	Southport avenue.....	About 240 feet west.....	76 80
6,601	B	Polk street.....	State street.....	Fifth avenue.....	257 60
6,602	B	West Twenty-fifth street....	St. Louis avenue.....	Mowry avenue.....	379 62
6,603	B	West Twenty-third street....	St. Louis avenue.....	Central Park avenue.....	270 00
6,604	B	Leavitt street.....	Milwaukee avenue.....	Asylum place.....	446 88
6,605	B	Hoyle avenue.....	Milwaukee avenue.....	Asylum place.....	915 01
6,606	B	Wood street.....	West Madison street.....	West Twelfth street.....	705 28
6,607	B	Diller street.....	West Indiana street.....	West Ohio street.....	87 60
6,608	B	West Lake street.....	Rockwell street.....	Homan avenue.....	520 98
6,609	E	Central Park avenue.....	West Huron street.....	West Chicago avenue.....	194 40

6,610	B	West Twenty-second street.	St. Louis avenue.	Mowry avenue.	545 30
6,611	B	Rockwell street.	Ogden avenue.	West Twelfth street.	538 46
6,647	B	Bismark court.	Noble street.	Its eastern terminus.	372 24
6,685	B	Twelfth street.	Wabash avenue.	Its eastern terminus.	220 80
6,740	B	West Thirteenth street.	Blue Island avenue.	Ashland avenue.	278 40
6,741	B	Indiana avenue.	Eighteenth street.	Egan avenue.	1,786 68
6,742	B	Lincoln street.	West Madison street.	West Chicago avenue.	486 20
6,743	B	Leavitt street.	West Madison street.	West Lake street.	246 40
6,744	B	Campbell avenue.	West Madison street.	West Twelfth street.	2,306 34
6,745	B	Cicero court.	West Jackson street.	West Van Buren street.	250 80
6,746	B	Milwaukee avenue.	West Chicago avenue.	North avenue.	3,557 76
6,747	S	Ontario street.	St. Clair street.	Its eastern terminus.	262 00
6,748	N	Locust street.	North Clark street.	La Salle avenue.	120 80
6,749	B	Burton place.	North Clark street.	North State street.	206 50
6,750	B	Thirty-third place.	South Park avenue.	Lake Park avenue.	468 72
6,751	S	Thirty-first place.	Beers street.	Long John street.	172 80
6,752	B	Twenty-first place.	Archer avenue.	Stewart avenue.	282 00
6,753	B	Douglas avenue.	South Park avenue.	Its eastern terminus.	336 36
6,754	B	Mather street.	Desplaines street.	Halsted street.	144 98
6,755	B	Leavitt street.	West Harrison street.	West Twelfth street.	285 38
6,756	B	Coulter street.	Robey street.	Western avenue.	338 13
6,757	E	Davlin street.	West Lake street.	West Kinzie street.	323 70
6,758	E	Lawndale avenue.	West Kinzie street.	West Huron street.	661 20
6,759	E	North Hoyne avenue.	West Kinzie street.	West Indiana street.	106 40
6,760	E	Whipple street.	West Jackson street.	West Van Buren street.	150 00
6,761	B	Rockwell street.	Ogden avenue.	West Sixteenth street.	646 18
6,762	B	Washtenaw avenue.	Kedzie avenue.	West Fifteenth street.	239 38
6,763	B	Park avenue.	Rockwell street.	Homan avenue.	776 63
6,764	B	West Fifteenth street.	West Jackson street.	Washtenaw avenue.	224 40
6,765	B	Oakley avenue.	West Kinzie street.	West Van Buren street.	272 40
6,766	B	Harding avenue.	West Kinzie street.	West Huron street.	1,264 29
6,767	W	Hamlin avenue.	West Indiana street.	West Chicago avenue.	701 48
6,768	E	Avers avenue.	West Kinzie street.	West Indiana street.	215 78
6,825	B	West Randolph street.	Ann street.	Ogden avenue.	242 80
6,826	B	West Randolph street.	South branch Chicago river.	Ann street.	1,856 56
6,828	B	West Congress street.	Western avenue.	California avenue.	737 20

## STATEMENT OF ASSESSMENTS FOR LAYING PLANK SIDEWALKS.

Warrant No.	SIDE	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,829	B	West Harrison street.....	Rockwell street.....	California avenue.....	\$506 55
6,830	B	Flournoy street.....	Ogden avenue.....	California avenue.....	1,662 04
6,883	B	Bonney avenue.....	Ogden avenue.....	West Twenty-sixth street.....	1,060 42
6,884	B	West Twenty-fourth street..	St. Louis avenue.....	Mowry avenue.....	474 24
6,891	B	Twelfth street.....	Wabash avenue.....	South Branch Chicago river..	953 40
6,995	S	West Thirteenth street.....	Wood street.....	Oakley avenue.....	503 50
7,086	B	Nixon street.....	West Polk street.....	West Taylor street.....	118 40
7,087	B	Springer avenue.....	Laurel street.....	Ullman street.....	637 14
7,088	B	Quinn street.....	Acher avenue.....	Thirty-first street.....	162 98
7,089	B	Fifth avenue.....	Thirty-sixth street.....	Thirty-seventh street.....	460 56
7,090	E	Portland avenue.....	Thirty-sixth street.....	Thirty-seventh street.....	242 40
7,091	S	West Harrison street.....	Blue Island avenue.....	May street.....	206 58
7,092	E	California avenue.....	West Division street.....	North avenue.....	190 00
7,093	N	Gilpin place.....	Loomis street.....	Sibley street.....	97 60
7,094	N	Thirty-third street.....	Ashland avenue.....	Charlton street.....	118 00
7,095	B	Charlton street.....	Thirty-third street.....	Douglas avenue.....	110 00
7,096	B	May street.....	West Madison street.....	West Lake street.....	234 00
7,097	B	Douglas avenue.....	Oakley avenue.....	Southwest Boulevard.....	162 63
7,098	B	Oakley avenue.....	Douglas avenue.....	Thirty-sixth street.....	307 23
7,099	B	Auburn avenue.....	Thirty-first street.....	Douglas avenue.....	347 12
7,101	B	Cherry avenue.....	North Branch street.....	Douglas avenue.....	266 37
7,102	E	Albany avenue.....	West Madison street.....	West Lake street.....	326 05
7,103	E	Long John street.....	Thirty-first street.....	Douglas avenue.....	774 04
7,147	N	Grand avenue.....	Artesian avenue.....	Rockwell street.....	230 10
7,148	B	Desplaines street.....	West Madison street.....	West Randolph street.....	279 30
7,149	B	Elizabeth street.....	West Lake street.....	West Erie street.....	569 06
7,150	B	Larrabee street.....	North avenue.....	Fullerton avenue.....	1,199 17
7,151	B	Meridian street.....	Desplaines street.....	Halsted street.....	824 22
7,152	B	Ann street.....	West Lake street.....	West Kinzie street.....	162 66
7,153	B	Warren avenue.....	Francisco street.....	Homan avenue.....	276 51

7,154	B	Lowe avenue.....	Thirty-third street.....	Egan avenue.....	1,444 11
7,155	B	West Twelfth street.....	Western avenue.....	California avenue.....	1,168 74
7,156	B	Western avenue.....	West Madison street.....	West Van Buren street.....	264 86
7,157	B	West Twenty-first street.....	Jefferson street.....	Union street.....	245 31
7,158	B	Dashiel street.....	Thirty-first street.....	Thirty-third street.....	226 98
7,159	B	Seymour street.....	C. M. & St. P. R. R.....	West Chicago avenue.....	1,347 84
7,160	B	Pratt place.....	Hoyne avenue.....	Its western terminus.....	139 20
7,161	B	Bradley street.....	Noble street.....	Elston avenue.....	170 00
7,162	W	Halsted street.....	Ems street.....	Hamburg street.....	86 40
7,163	S	Iowa street.....	Wood street.....	Robey street.....	243 75
7,164	B	Penn street.....	Division street.....	Vedder street.....	90 00
7,165	B	Grace street.....	Division street.....	Vedder street.....	130 00
7,166	B	Vine street.....	Division street.....	Vedder street.....	112 00
7,167	B	Jay street.....	Center street.....	Fullerton avenue.....	911 68
7,168	B	Rees street.....	Laramie street.....	Halsted street.....	845 13
7,169	B	Townsend street.....	Erie street.....	Chicago avenue.....	288 35
7,170	B	Elm street.....	Sedgwick street.....	Crosby street.....	612 35
7,171	B	Hoyne avenue.....	West Indiana street.....	West Chicago avenue.....	283 10
7,172	B	Hoyne avenue.....	West Madison street.....	West Kinzie street.....	564 99
7,173	B	Leavitt street.....	West Lake street.....	West Indiana street.....	273 22
7,174	B	Bryson street.....	Lincoln street.....	Western avenue.....	814 74
7,175	B	Coblentz street.....	Robey street.....	Leavitt street.....	238 21
7,176	B	Rosebud street.....	Western avenue.....	Bloomington road.....	230 88
7,177	E	Western avenue.....	Milwaukee avenue.....	Fullerton avenue.....	372 78
7,185	B	Main street.....	Thirty-first street.....	South Branch Chicago river.....	446 25
7,196	B	Pitney court.....	Archer avenue.....	Thirty-first street.....	574 87
7,197	B	Thirty-first street.....	Halsted street.....	Pitney court.....	1,006 82
7,198	B	Prospect place.....	Cottage Grove avenue.....	Vincennes avenue.....	150 00
7,199	W	Cottage Grove avenue.....	University place.....	College place.....	228 00
7,200	B	Hastings street.....	Ashland avenue.....	Leavitt street.....	222 40
7,201	B	Fairfield avenue.....	Harvard street.....	Fillmore street.....	364 80
7,202	B	Diller street.....	Fulton street.....	Austin avenue.....	214 00
7,203	B	Mowry avenue.....	West Twenty-fifth street.....	West Twenty-sixth street.....	170 00
7,204	B	Hamlin avenue.....	West Kinzie street.....	West Huron street.....	252 72
7,205	B	Rumsey street.....	West Chicago avenue.....	West Division street.....	424 46
7,206	B	Snell street.....	West Huron street.....	West Chicago avenue.....	84 80

## STATEMENT OF ASSESSMENTS FOR LAYING PLANK SIDEWALKS.

Warrant No.	SIDE	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
7,207	B	Herndon street.	Hawthorne avenue.	Fullerton avenue.	\$ 577 22
7,208	B	Crosby street.	Larrabee street.	Division street.	190 00
7,209	B	Chatham street.	Division street.	Hobbie street.	84 00
7,210	B	Lowe avenue.	Thirty-first street.	Thirty-third street.	448 40
7,211	B	Stearns street.	Halsted street.	Main street.	733 71
7,212	B	Fifth avenue.	Douglas avenue.	Thirty-seventh street.	122 40
7,213	B	Twenty-second street.	Stewart avenue.	Wallace street.	309 70
7,214	B	Twenty-seventh street.	Halsted street.	Quarry street.	573 42
7,215	B	Douglas avenue.	Stewart avenue.	Halsted street.	456 38
7,216	B	Central Park avenue.	Ogden avenue.	West Twelfth street.	1,080 79
7,217	B	Robey street.	West Madison street.	West Lake street.	238 00
7,218	B	Ann street.	West Madison street.	West Randolph street.	106 00
7,219	B	May street.	West Lake street.	West Chicago avenue.	355 10
7,220	B	Carpenter street.	West Indiana street.	West Chicago avenue.	103 78
7,221	B	St. Johns place.	West Lake street.	Arbor place.	156 58
7,222	B	Waldo place.	Desplaines street.	Halsted street.	84 00
7,223	B	Eagle street.	Desplaines street.	Halsted street.	150 50
7,224	S	West Monroe street.	California avenue.	Colorado avenue.	152 40
7,225	N	Lexington street.	Rockwell street.	California avenue.	103 20
7,226	E	Springfield avenue.	West Kinzie street.	West Indiana street.	155 20
7,227	E	Washenaw avenue.	West Harrison street.	Lexington street.	100 00
7,228	W	Central Park avenue.	West Indiana street.	West Huron street.	378 48
7,229	S	Thirty-seventh court.	Michigan avenue.	Indiana avenue.	121 60
7,232	B	Archer avenue.	Halsted street.	S. Branch Chicago River.	4,811 52
7,248	B	West Monroe street.	Aberdeen street.	Western avenue.	873 94
7,249	B	Superior street.	La Salle street.	Its western terminus.	1,36 66
7,250	B	Broad street.	C. & A. R. R.	Thirty-first street.	187 20
7,251	B	Keeley street.	Thirty-first street.	Lyman street.	97 60
7,252	B	Bonfield street.	Archer avenue.	Thirty-first street.	577 22
7,253	B	Western avenue.	West Madison street.	West Ohio street.	403 22

7,254	B	Oakley avenue.....	West Madison street.....	West Chicago avenue.....	665 81
7,255	B	South Dearborn street.....	Twenty-second street.....	Egan avenue.....	2,234 80
7,256	B	Wabansia avenue.....	Milwaukee avenue.....	Elston avenue.....	1,244 31
7,257	B	West Sixteenth street.....	Centre avenue.....	Wood street.....	1,094 09
7,258	B	Maplewood avenue.....	West Lake street.....	Its northern terminus.....	93 60
7,259	B	Western avenue.....	West Van Buren street.....	Ogden avenue.....	964 96
7,260	B	Ogden avenue.....	Oakley avenue.....	California avenue.....	1,272 43
7,261	B	Leavitt street.....	West Madison street.....	West Harrison street.....	379 04
7,262	B	Green street.....	West Madison street.....	West Harrison street.....	511 48
7,263	B	Dudley street.....	Augusta street.....	West Division street.....	80 00
7,264	B	Wood street.....	Milwaukee avenue.....	West Clybourn place.....	1,118 51
7,265	B	Paulina street.....	Milwaukee avenue.....	Wabansia avenue.....	280 06
7,266	B	Nebraska street.....	Loomis street.....	Ashland avenue.....	324 14
7,267	B	Pratt street.....	Milwaukee avenue.....	Halsted street.....	712 44
7,268	B	West Harrison street.....	California avenue.....	Kedzie avenue.....	1,041 73
7,269	B	Crossing street.....	Paulina street.....	Wendel street.....	134 00
7,270	B	Fowler street.....	Leavitt street.....	Evergreen avenue.....	435 28
7,271	B	Tilden avenue.....	Aberdeen street.....	Centre avenue.....	136 80
7,272	B	Thirty-third street.....	Stewart avenue.....	Halsted street.....	639 54
7,273	B	Thirty-second street.....	Wallace street.....	Dashiel street.....	400 78
7,274	B	Thirty-eighth street.....	Stewart avenue.....	Halsted street.....	481 84
7,275	W	Leavitt street.....	Rhine street.....	Fullerton avenue.....	105 60
7,276	W	Talman avenue.....	Ogden avenue.....	West Fifteenth street.....	146 00
7,277	B	Paulina street.....	West Chicago avenue.....	West Division street.....	412 55
7,278	B	Aberdeen street.....	West Madison street.....	West Harrison street.....	243 93
7,279	B	Front street.....	Carpenter street.....	Sangamon street.....	168 00
7,280	B	West Adams street.....	Canal street.....	Halsted street.....	1,419 34
7,281	B	Fulton street.....	Canal street.....	Morgan street.....	1,848 75
7,282	B	Clinton street.....	West Madison street.....	West Harrison street.....	1,187 06
7,317	B	Aberdeen street.....	West Harrison street.....	West Polk street.....	267 15
7,318	W	Curtis street.....	West Huron street.....	May street.....	251 55
7,319	B	Osgood street.....	Centre avenue.....	Fullerton avenue.....	826 47
7,320	B	Clyde street.....	Clybourn avenue.....	Centre street.....	537 88
7,321	B	Thirty-eighth street.....	Vincennes avenue.....	Cottage Grove avenue.....	235 37
7,322	B	Trumbull avenue.....	Ogden avenue.....	Douglas Park Boulevard.....	467 96
7,323	B	Fulton street.....	Morgan street.....	Western avenue.....	1,104 26

## STATEMENT OF ASSESSMENTS FOR LAYING PLANK SIDEWALKS.

Warrant No.	SIDE	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
7,324	B	Crystal street.....	Leavitt street.....	Its eastern terminus.....	611 24
7,325	B	Honore street.....	West Madison street.....	West Harrison street.....	414 76
7,326	B	Paulina street.....	West Adams street.....	West Polk street.....	174 18
7,327	B	Morgan street.....	West Fourteenth street.....	West Sixteenth street.....	240 00
7,328	B	Brown street.....	West Fourteenth street.....	West Sixteenth street.....	248 40
7,329	E	Crawford avenue.....	West Indiana street.....	West Chicago avenue.....	125 60
7,330	B	Avers avenue.....	West Huron street.....	West Chicago avenue.....	96 80
7,331	B	Carroll avenue.....	Carpenter street.....	Leavitt street.....	1,469 27
7,332	B	West Sixteenth street.....	Western avenue.....	California avenue.....	1,591 74
7,333	B	Newberry avenue.....	West Fourteenth street.....	West Sixteenth street.....	132 80
7,340	E	Rockwell street.....	Thomas street.....	West Division street.....	84 00
7,342	B	California avenue.....	West Twelfth street.....	West Twenty-sixth street.....	453 90
7,347	B	West Lake street.....	Western avenue.....	Rockwell street.....	539 15
7,348	B	Morgan street.....	West Madison street.....	West Washington street.....	146 18
7,349	B	Olive street.....	West Taylor street.....	West Twelfth street.....	396 32
7,353	B	Upton street.....	Milwaukee avenue.....	Western avenue.....	105 00
7,354	B	Lumber street.....	Union street.....	West Twenty-second street.....	112 70
7,355	B	Robey street.....	Milwaukee avenue.....	Asylum Place.....	735 52
7,356	B	West Twentieth street.....	Throop street.....	Blue Island avenue.....	233 20
7,357	B	Canalport avenue.....	Brown street.....	Morgan street.....	876 75
7,358	B	Loomis street.....	West Twelfth street.....	West Fourteenth street.....	364 87
7,359	B	West Chicago avenue.....	Milwaukee avenue.....	Ashland avenue.....	911 95
7,360	B	Hoyne avenue.....	West Division street.....	North avenue.....	390 21
7,361	B	Tilden avenue.....	Morgan street.....	Aberdeen street.....	105 44
7,362	B	Bowery street.....	West Van Buren street.....	West Congress street.....	116 02
7,363	B	West Fifteenth street.....	Ashland avenue.....	Lincoln street.....	567 39
7,368	B	Sacramento avenue.....	West Lake street.....	West Kinzie street.....	108 15
7,369	B	Johnson street.....	West Eighteenth street.....	West Twenty-second street.....	365 64
7,370	B	Leavitt street.....	West Twelfth street.....	C. B. & Q. R. R.....	318 78
7,371	B	Oakley avenue.....	West Twelfth street.....	C. B. & Q. R. R.....	351 28

7,372	B	Wood street.....	West Harrison street.....	West Twelfth street.....	510 72
7,391	B	Talman avenue.....	Ogden avenue.....	West Twelfth street.....	248 22
7,392	B	String street.....	Canalport avenue.....	West Twenty-second street.....	98 01
7,397	B	Oakley avenue.....	West Madison street.....	West Twelfth street.....	2,322 00
7,399	B	Portland avenue.....	Douglas avenue.....	Thirty-seventh street.....	349 60
7,400	B	Park avenue.....	Robey street.....	Evergreen avenue.....	95 00
7,401	B	West Fifteenth street.....	Canal street.....	Halsted street.....	269 13
7,402	B	West Fifteenth street.....	Washtenaw avenue.....	California avenue.....	290 12
7,403	B	Barber street.....	Stewart avenue.....	Halsted street.....	520 47
7,404	B	Asylum place.....	Girard street.....	Elston avenue.....	181 20
7,405	B	Harvey street.....	Wood street.....	Robey street.....	461 32
7,406	B	Dudley street.....	North avenue.....	Asylum place.....	1,397 86
7,407	B	Elk Grove street.....	Wood street.....	Asylum place.....	806 60
7,436	S	West Chicago avenue.....	Humboldt Park boulevard.....	Crawford avenue.....	1,034 52
Total.....					\$ 163,934 94

## STATEMENT OF ASSESSMENTS FOR ERECTING GAS LAMP POSTS.

Warrant No.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,408	14	Curtis street.....	Fulton street.....	West Huron street.....	440 16
6,409	10	West Madison street.....	Ashtland avenue.....	Oakley avenue.....	314 40
6,410	5	Thirty-third street.....	State street.....	L. S. & M. S. R. R.....	157 20
6,411	6	Greshaw street.....	Western avenue.....	Campbell avenue.....	188 64
6,416	3	Johnson place.....	Thirty-seventh street.....	Thirty-eighth street.....	99 32
6,417	3	Thirty-fourth street.....	State street.....	Michigan avenue.....	99 32
6,418	3	Stone street.....	Scott street.....	Goethe street.....	99 32
6,424	24	South Dearborn street.....	Twenty-first street.....	Twenty-fifth street.....	730 56
6,425	8	Twenty-first street.....	South Dearborn street.....	Wentworth avenue.....	251 52
6,426	9	Douglas avenue.....	State street.....	South La Salle street.....	282 96
6,427	2	Thirty-seventh court.....	State street.....	About 300 feet east.....	67 88
6,428	13	West Randolph street.....	Halsted street.....	Ogden avenue.....	408 72
6,429	23	West Madison street.....	Homan avenue.....	About 200 feet west.....	700 12
6,430	10	Grand boulevard.....	About 400 ft north of 37th st..	About 400 ft. south of 37th st..	314 40
6,431	12	Burling street.....	Centre street.....	Webster avenue.....	377 28
6,436	33	Portland avenue.....	Twenty-sixth street.....	Thirty-third street.....	957 00
6,474	39	Michigan avenue.....	Twenty-sixth street.....	Egan avenue.....	702 00
6,475	12	Hoyne avenue.....	West Twenty-first street.....	Ambrose street.....	380 00
6,476	10	Thirty-third street.....	Wabash avenue.....	Calumet avenue.....	300 00
6,477	13	Stanton avenue.....	Thirty-seventh street.....	Egan avenue.....	390 00
6,478	3	College place.....	Cottage Grove avenue.....	Rhodes avenue.....	95 00
6,494	16	Fullerton avenue.....	Southport avenue.....	Fremont street.....	480 00
6,506	6	Morgan street.....	West Indiana street.....	Milwaukee avenue.....	180 00
6,507	13	West Ohio street.....	Paulina street.....	Lincoln street.....	450 00
6,508	8	West Superior street.....	Wood street.....	Lincoln street.....	240 00
6,509	6	Ambrose street.....	Hoyne avenue.....	Leavitt street.....	180 00
6,510	13	Kendall street.....	West Polk street.....	Taylor street.....	390 00
6,511	3	Irving avenue.....	West Van Buren street.....	About 300 feet south.....	95 00
6,512	24	West Twenty-first street.....	Hoyne avenue.....	Western avenue.....	720 00
6,513	7	Lincoln street.....	West Harrison street.....	West Polk street.....	210 00

6,514	28	Wood street.....	West Harrison street.....	West Twelfth street.....	812 00
6,515	6	West Congress street.....	Campbell avenue.....	Rockwell street.....	180 00
6,516	8	Thirty-seventh street.....	State street.....	L. S. & M. S. R. R.....	240 00
6,517	8	Grand boulevard.....	400 ft. south of 37th street.....	Egan avenue.....	240 00
6,518	24	North avenue.....	Western avenue.....	California avenue.....	720 00
6,529	4	Front street.....	Carpenter street.....	May street.....	120 00
6,530	5	Will street.....	Milwaukee avenue.....	Augusta street.....	150 00
6,531	4	Arthington street.....	Loomis street.....	Sibley street.....	120 00
6,532	4	Sibley street.....	Arthington street.....	Gilpin street.....	120 00
6,533	4	Gilpin street.....	Loomis street.....	Sibley street.....	95 00
6,649	3	Morgan street.....	Washington boulevard.....	West Randolph street.....	95 00
6,650	3	California avenue.....	North avenue.....	About 300 feet south.....	1,200 00
6,726	45	Wood street.....	West Indiana street.....	West Division street.....	120 00
6,727	4	Ontario street.....	St. Clair street.....	About 400 feet east.....	120 00
6,728	4	Groveland court.....	Stanton avenue.....	About 300 feet east.....	180 00
6,729	6	Thirty-sixth street.....	Wabash avenue.....	Indiana avenue.....	180 00
6,730	3	Seventeenth street.....	State street.....	Dearborn street.....	95 00
6,731	3	Ohio street.....	St. Clair street.....	About 300 feet east.....	95 00
6,732	6	Lincoln street.....	Thomas street.....	Division street.....	180 00
6,733	7	Robey street.....	West Division street.....	Bryson street.....	210 00
6,734	7	Garfield avenue.....	Larrabee street.....	Sedgwick street.....	210 00
6,735	4	West Twenty-first street.....	Blue Island avenue.....	Ashtland avenue.....	120 00
6,820	6	Calumet avenue.....	Thirty-seventh street.....	Thirty-eighth street.....	180 00
6,821	7	Prairie avenue.....	Thirty-seventh street.....	Thirty-eighth street.....	210 00
6,822	6	Fullerton avenue.....	Larrabee street.....	Lincoln street.....	180 00
6,901	4	Chestnut street.....	North Franklin street.....	Its western terminus.....	120 00
6,902	4	Groveland avenue.....	Twenty-eighth street.....	Twenty-ninth street.....	120 00
6,903	7	Schiller street.....	North State street.....	Lake shore drive.....	210 00
6,904	3	Huron street.....	Townsend street.....	Kingsbury street.....	95 00
6,905	5	Ogden avenue.....	West Randolph street.....	West Madison street.....	150 00
6,906	6	Spruce street.....	Loomis street.....	Lafin street.....	180 00
6,910	3	Irving avenue.....	West Polk street.....	About 250 feet north.....	95 00
6,911	14	Cypress street.....	Kendall street.....	West Twelfth street.....	420 00
6,912	13	Flournoy street.....	Leavitt street.....	Western avenue.....	390 00
6,913	3	Sibley street.....	Macalister place.....	Gilpin place.....	95 00
6,918	15	Warren avenue.....	Pollock street.....	California avenue.....	450 00

## STATEMENT OF ASSESSMENTS FOR ERECTING GAS LAMP POSTS.

Warrant No.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,920	21	Thirty-first street.....	Deering street.....	Pitney court.....	630 00
6,921	3	Crilly street.....	Eugenie street.....	Florimond street.....	95 00
6,922	6	Cleaver street.....	West Division street.....	Bradley street.....	180 00
6,926	5	Sangamon street.....	Dix street.....	C. & N. W. R. R.....	150 00
6,932	9	Pitney court.....	Archer avenue.....	James avenue.....	270 00
6,994	45	Thirty-seventh street.....	L. S. & M. S. R. R.....	Dashiel street.....	1,305 00
6,996	8	North avenue.....	California avenue.....	Humboldt Park boulevard.....	240 00
7,006	6	Alexander street.....	Portland avenue.....	Stewart avenue.....	180 00
7,059	28	Southport avenue.....	Clybourn place.....	Fullerton avenue.....	812 00
7,062	9	Vine street.....	North avenue.....	Willow street.....	270 00
7,063	13	Burling street.....	Willow street.....	Centre street.....	325 00
7,064	25	Seminary avenue.....	Centre street.....	Fullerton avenue.....	625 00
7,065	9	Wesson street.....	Oak street.....	Division street.....	270 00
7,066	4	Belden avenue.....	North Park avenue.....	About 400 feet east.....	120 00
7,067	48	West Van Buren street.....	Rockwell street.....	Kedzie avenue.....	1,344 00
7,068	24	Twenty-fourth street.....	State street.....	Hanover street.....	720 00
7,073	8	Western avenue.....	West Twelfth street.....	Ogden avenue.....	240 00
7,074	5	Oakley avenue.....	West Jackson street.....	West Van Buren street.....	150 00
7,075	9	Oakley avenue.....	West Taylor street.....	Ogden avenue.....	270 00
7,076	4	Ogden avenue.....	500 ft. south of W. Twelfth st.....	Western avenue.....	120 00
7,077	27	Paulina street.....	West Chicago avenue.....	West Division street.....	783 00
7,078	18	West Indiana street.....	Halsted street.....	West Division street.....	540 00
7,079	5	Morgan street.....	West Polk street.....	Ashland avenue.....	150 00
7,080	5	Dearborn street.....	Randolph street.....	West Twelfth street.....	150 00
7,081	15	Wabash avenue.....	Thirty-seventh street.....	South Water street.....	150 00
7,083	37	Wentworth avenue.....	Thirty-third street.....	Egan avenue.....	450 00
7,106	44	Warren avenue.....	California avenue.....	Egan avenue.....	1,036 00
7,111	5	Keith street.....	West Huron street.....	Homan avenue.....	1,188 00
7,112	21	Austin avenue.....	West Lake street.....	West Chicago avenue.....	150 00
7,113	5	Paulina street.....	West Lake street.....	West Kinzie street.....	630 00
				West Kinzie street.....	150 00

7,114	5	Seeley avenue.....	West Monroe street.....	West Van Buren street.....	150 00
7,115	7	Rice street.....	Robey street.....	Hoyle avenue.....	210 00
7,116	8	North Water street.....	St. Clair street.....	About 800 feet east.....	240 00
7,117	2	North Park avenue.....	Centre street.....	Garfield avenue.....	65 00
7,118	4	Racine avenue.....	Centre street.....	Clybourn avenue.....	120 00
7,119	5	Astor street.....	Scott street.....	Banks street.....	150 00
7,120	19	Cornelia street.....	Milwaukee avenue.....	Ashland avenue.....	570 00
7,121	5	Clarkson court.....	Washington boulevard.....	West Lake street.....	150 00
7,122	16	West Erie street.....	Robey street.....	Leavitt street.....	480 00
7,123	5	Front street.....	Sangamon street.....	Carpenter street.....	150 00
7,124	32	Robey street.....	West Chicago avenue.....	West Division street.....	928 00
7,125	11	Robey street.....	Fulton street.....	West Indiana street.....	330 00
7,126	3	School street.....	Jefferson street.....	Desplaines street.....	95 00
7,127	10	Sangamon street.....	West Monroe street.....	West Harrison street.....	300 00
7,128	8	West Quincy street.....	Desplaines street.....	Halsted street.....	240 00
7,129	5	Johnson street.....	West Twelfth street.....	West Fourteenth street.....	150 00
7,130	13	West Eighteenth street.....	Ashland avenue.....	Wood street.....	390 00
7,131	17	West Twentieth street.....	Throop street.....	Ashland avenue.....	510 00
7,132	15	Bunker street.....	Canal street.....	Halsted street.....	450 00
7,133	5	Fifth avenue.....	Madison street.....	Randolph street.....	150 00
7,134	3	North Centre avenue.....	Milwaukee avenue.....	C. & N. W. R. R.....	95 00
7,135	8	Tell place.....	Milwaukee avenue.....	Ashland avenue.....	240 00
7,136	6	Sangamon street.....	West Chicago avenue.....	C. & N. W. R. R.....	180 00
7,146	14	Allport street.....	West Sixteenth street.....	West Nineteenth street.....	420 00
7,141	2	West Polk street.....	Ogden avenue.....	Robey street.....	65 00
7,142	19	Robey street.....	West Polk street.....	West Twelfth street.....	570 00
7,143	9	West Twentieth street.....	Halsted street.....	May street.....	270 00
7,144	8	Clark street.....	Jackson street.....	Polk street.....	240 00
7,145	5	Madison street.....	State street.....	Clark street.....	150 00
7,146	15	Centre street.....	Sheffield avenue.....	Racine avenue.....	450 00
7,178	3	Indiana avenue.....	Twelfth street.....	Thirteenth street.....	95 00
7,194	16	West Nineteenth street.....	Centre avenue.....	Blue Island avenue.....	480 00
7,240	31	Egan avenue.....	Cottage Grove avenue.....	Wentworth avenue.....	899 00
7,284	7	West Indiana street.....	Ashland avenue.....	Hoyle avenue.....	210 00
7,285	18	Fulton street.....	Sangamon street.....	Ashland avenue.....	540 00
7,286	15	California avenue.....	West Monroe street.....	West Van Buren street.....	450 00

## STATEMENT OF ASSESSMENTS FOR ERECTING GAS LAMP POSTS.

Warrant No.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,920	21	Thi ty-first street.....	Deering street.....	Pitney court.....	630 00
6,921	3	Crilly street.....	Eugenie street.....	Florimond street.....	95 00
6,922	6	Cleaver street.....	West Division street.....	Bridley street.....	180 00
6,926	5	Saugamon street.....	Dix street.....	C. & N. W. R. R.....	150 00
6,932	9	Pitney court.....	Archer avenue.....	James avenue.....	270 00
6,994	45	Thirty-seventh street.....	L. S. & M. S. R. R.....	Dashiel street.....	1,305 00
6,996	8	North avenue.....	California avenue.....	Humboldt Park boulevard.....	240 00
7,006	6	Alexander street.....	Portland avenue.....	Stewart avenue.....	180 00
7,059	28	Southport avenue.....	Clybourn place.....	Fullerton avenue.....	812 00
7,062	9	Vine street.....	North avenue.....	Willow street.....	270 00
7,063	13	Burling street.....	Willow street.....	Centre street.....	325 00
7,064	25	Seminary avenue.....	Centre street.....	Fullerton avenue.....	625 00
7,065	9	Wesson street.....	Oak street.....	Division street.....	270 00
7,066	4	Belden avenue.....	North Park avenue.....	About 400 feet east.....	120 00
7,067	48	West Van Buren street.....	Rockwell street.....	Kedzie avenue.....	1,344 00
7,068	24	Twenty-fourth street.....	State street.....	Hanover street.....	720 00
7,073	8	Western avenue.....	West Twelfth street.....	Ogden avenue.....	240 00
7,074	5	Oakley avenue.....	West Jackson street.....	West Van Buren street.....	150 00
7,075	9	Oakley avenue.....	West Taylor street.....	Ogden avenue.....	270 00
7,076	4	Ogden avenue.....	500 ft. south of W. Twelfth st.....	Western avenue.....	120 00
7,077	27	Paulina street.....	West Chicago avenue.....	West Division street.....	783 00
7,078	18	West Indiana street.....	Halsted street.....	Ashland avenue.....	540 00
7,079	5	Morgan street.....	West Polk street.....	West Twelfth street.....	150 00
7,080	5	Dearborn street.....	Randolph street.....	South Water street.....	150 00
7,081	15	Wabash avenue.....	Thirty-seventh street.....	Egan avenue.....	450 00
7,083	37	Wentworth avenue.....	Thirty-third street.....	Homan avenue.....	1,036 00
7,106	44	Warren avenue.....	California avenue.....	West Chicago avenue.....	1,188 00
7,111	5	Keith street.....	West Huron street.....	Western avenue.....	150 00
7,112	21	Austin avenue.....	Hoyle avenue.....	West Kinzie street.....	630 00
7,113	5	Paulina street.....	West Lake street.....		150 00

7,114	5	Seeley avenue.....	West Monroe street.....	West Van Buren street.....	150 00
7,115	7	Rice street.....	Robey street.....	Hoyle avenue.....	210 00
7,116	8	North Water street.....	St. Clair street.....	About 800 feet east.....	240 00
7,117	2	North Park avenue.....	Centre street.....	Garfield avenue.....	65 00
7,118	4	Racine avenue.....	Centre street.....	Clybourn avenue.....	120 00
7,119	5	Astor street.....	Scott street.....	Banks street.....	150 00
7,120	19	Cornelia street.....	Milwaukee avenue.....	Ashland avenue.....	570 00
7,121	5	Clarkson court.....	Washington boulevard.....	West Lake street.....	150 00
7,122	16	West Erie street.....	Robey street.....	Leavitt street.....	480 00
7,123	5	Front street.....	Sangamon street.....	Carpenter street.....	150 00
7,124	32	Robey street.....	West Chicago avenue.....	West Division street.....	928 00
7,125	11	Robey street.....	Fulton street.....	West Indiana street.....	330 00
7,126	3	School street.....	Jefferson street.....	Desplaines street.....	95 00
7,127	10	Sangamon street.....	West Monroe street.....	West Harrison street.....	300 00
7,128	8	West Quincy street.....	Desplaines street.....	Halsted street.....	240 00
7,129	5	Johnson street.....	West Twelfth street.....	West Fourteenth street.....	150 00
7,130	13	West Eighteenth street.....	Ashland avenue.....	Wood street.....	390 00
7,131	17	West Twentieth street.....	Throop street.....	Ashland avenue.....	510 00
7,132	15	Bunker street.....	Canal street.....	Halsted street.....	450 00
7,133	5	Fifth avenue.....	Madison street.....	Randolph street.....	150 00
7,134	3	North Centre avenue.....	Milwaukee avenue.....	C. & N. W. R. R.....	95 00
7,135	8	Tell place.....	Milwaukee avenue.....	Ashland avenue.....	240 00
7,136	6	Sangamon street.....	West Chicago avenue.....	C. & N. W. R. R.....	180 00
7,146	14	Allport street.....	West Sixteenth street.....	West Nineteenth street.....	420 00
7,141	2	West Polk street.....	Ogden avenue.....	Robey street.....	65 00
7,142	19	Robey street.....	West Polk street.....	West Twelfth street.....	570 00
7,143	9	West Twentieth street.....	Halsted street.....	May street.....	270 00
7,144	8	Clark street.....	Jackson street.....	Polk street.....	240 00
7,145	5	Madison street.....	State street.....	Clark street.....	150 00
7,146	15	Centre street.....	Sheffield avenue.....	Racine avenue.....	450 00
7,178	3	Indiana avenue.....	Twelfth street.....	Thirteenth street.....	95 00
7,194	16	West Nineteenth street.....	Centre avenue.....	Blue Island avenue.....	480 00
7,240	31	Egan avenue.....	Cottage Grove avenue.....	Wentworth avenue.....	899 00
7,284	7	West Indiana street.....	Ashland avenue.....	Hoyle avenue.....	210 00
7,285	18	Fulton street.....	Sangamon street.....	Ashland avenue.....	540 00
7,286	15	California avenue.....	West Monroe street.....	West Van Buren street.....	450 00

## STATEMENT OF ASSESSMENTS FOR ERECTING GAS LAMP POSTS.

Warrant No.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
7,287	5	Cicero court	West Jackson street.	West Van Buren street	150 00
7,290	9	Latin street...	West Taylor street.	West Twelfth street.	270 00
7,298	12	South Dearborn street.	Twenty-fifth street	Twenty-seventh street.	360 00
7,299	3	Garfield avenue	Bissell street.	Sheffield avenue.	95 00
7,300	36	Orden avenue.	Western avenue.	California avenue.	1,044 00
7,301	16	Fillmore street.	Western avenue.	Rockwell street.	480 00
7,302	10	Loomis street.	C. B. & Q. R. R.	West Eighteenth street.	300 00
7,303	6	Sheffield avenue.	Centre street.	Garfield avenue.	180 00
7,304	3	Belden avenue	Fremont street.	Bissell street.	95 00
7,305	11	Jay street.	Centre street.	Webster avenue.	330 00
7,306	2	Elm street.	Sedgwick street.	Townsend street.	65 00
7,307	15	Wabash avenue.	Twelfth street.	Twenty-second street.	450 00
7,308	3	Douglas avenue.	Emerald avenue.	Halsted street	95 00
7,309	4	Thirty-seventh street.	Indiana street.	Grand Boulevard.	120 00
7,310	26	Grand Boulevard.	Douglas avenue.	Eg in avenue.	754 00
7,311	9	Sanger street.	Archer avenue.	Twenty-sixth street	270 00
7,312	8	Twenty-sixth street.	State street.	Wentworth avenue.	240 00
7,314	7	West Fifteenth street.	Throop street.	Loomis street.	210 00
7,335	14	Idaho street.	Flournoy street.	West Taylor street.	420 00
7,336	7	Davis street	Thompson street.	North avenue.	210 00
7,337	7	Benson street.	Thirty-first street	Thirty-second street.	210 00
7,338	52	West Huron street.	Paulina street.	Western avenue.	1,456 00
	1,749				\$51,306 80

# STATEMENT OF ASSESSMENTS FOR ERECTING OIL LAMP POSTS.

## SPECIAL ASSESSMENT DEPARTMENT.

247

Warrant No.	No. of Posts.	NAME OF STREET.	FROM.	TO	AMOUNT OF ASSESSMENT
6,405	20	Thirteenth place	Ashland avenue	Lincoln street	\$207 00
6,406	21	Thirteenth place	Robey street	Oakley avenue	216 95
6,407	28	Hastings street	Wood street	Leavitt street	286 60
6,412	5	Irving avenue	Fulton street	West Kinzie street	67 75
6,413	6	Brigham street	Paulina street	Wood street	67 70
6,414	4	Oakley avenue	West Indiana street	West Ohio street	46 80
6,415	4	West Kinzie street	Robey street	Hoyne avenue	44 80
6,419	13	Dania street	Hirsch street	North avenue	137 35
6,420	12	Whipple street	Colorado avenue	West Van Buren street	127 40
6,421	12	Albany avenue	Colorado avenue	West Van Buren street	127 40
6,422	6	Fry street	Rose street	Ashland avenue	67 70
6,423	5	Shelby court	West Nineteenth street	West Twentieth street	57 75
6,432	4	Broom street	West Indiana street	West Ohio street	46 80
6,433	5	Hunt street	Elizabeth street	North Centre avenue	57 75
6,434	2	Ada street	West Kinzie street	Austin avenue	25 90
6,435	26	Emerson avenue	Wood street	Oakley avenue	266 70
6,437	14	Seymour street	North avenue	Hirsch street	147 30
6,471	11	Julian street	Ashland avenue	Wood street	117 45
6,472	11	McReynolds street	Ashland avenue	Wood street	117 45
6,473	11	Keenon street	Ashland avenue	Wood street	117 45
6,505	6	Portland avenue	Douglas avenue	630 feet south	117 45
6,520	19	West Indiana street	Tinkham street	Crawford avenue	69 70
6,521	13	Central Park avenue	West Indiana street	West Huron street	206 55
6,523	12	Avers avenue	West Kinzie street	West Ohio street	137 35
6,527	9	Crawford avenue	West Lake street	West Kinzie street	127 40
6,528	4	Walnut street	Parker place	Its eastern terminus	97 55
6,651	13	Seymour street	West Division street	Hirsch street	46 80
6,652	6	St. Louis avenue	West Kinzie street	Central Park Boulevard	137 35
6,653	14	Parker place	West Lake street	West Kinzie street	67 70
6,655	26	Parnell avenue	Douglas avenue	Egan avenue	147 30
					258 70

## DEPARTMENT OF PUBLIC WORKS.

## STATEMENT OF ASSESSMENTS FOR ERECTING OIL LAMP POSTS.

Warrant No.	No. of Posts.	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,656	25	Auburn street.....	Thirty-first street.....	Douglas avenue.....	\$248 75
6,657	67	Wallace street.....	Archer avenue.....	Egan avenue.....	599 65
6,723	15	Rockwell street.....	Ogden avenue.....	West Sixteenth street.....	157 25
6,724	4	Washtenaw avenue.....	Ogden avenue.....	West Fifteenth street.....	46 80
6,725	2	Pearson street.....	North Franklin street.....	North Market street.....	25 90
6,736	15	Twenty-eighth street.....	Hanover street.....	Halsted street.....	157 25
6,737	4	Lee place.....	Robey street.....	Hoyle avenue.....	46 80
6,738	19	Lincoln street.....	West Chicago avenue.....	Thomas street.....	197 05
6,899	3	Sacramento avenue.....	West Madison street.....	Colorado avenue.....	35 85
6,900	6	West Superior street.....	Ashland avenue.....	Paulina street.....	67 70
6,906	13	West Lake street.....	Hamlin avenue.....	Crawford avenue.....	137 35
6,907	11	West Lake street.....	Homan avenue.....	Central Park avenue.....	117 45
6,908	20	Twenty-ninth street.....	Stewart avenue.....	Halsted street.....	207 00
6,914	6	West Fifteenth street.....	Rockwell street.....	Washtenaw avenue.....	67 70
6,915	2	Pearson street.....	North Market street.....	Its western terminus.....	25 90
6,916	29	Archer avenue.....	Long John street.....	Western avenue.....	296 55
6,917	13	Napoleon place.....	Stewart avenue.....	Wallace street.....	137 35
6,919	10	Thirty-second street.....	Hanover street.....	Wallace street.....	107 50
6,923	2	West Jackson street.....	Whipple street.....	Albany avenue.....	25 90
6,924	6	Owasco street.....	Rockwell street.....	Washtenaw avenue.....	67 70
6,925	5	West Twenty-first street.....	Union street.....	Jefferson street.....	57 75
6,927	11	Butterfield street.....	Thirty-third street.....	Douglas avenue.....	117 45
6,978	6	Union place.....	Twenty-second street.....	Union street.....	77 70
6,983	4	Grace street.....	Division street.....	Vedder street.....	46 80
7,060	13	Lowe avenue.....	Douglas avenue.....	Thirty-seventh street.....	137 35
7,061	13	Hanover street.....	Thirty-first street.....	Thirty-third street.....	137 35
7,071	30	West Division street.....	Western avenue.....	California avenue.....	298 50
7,082	13	Lowe avenue.....	Thirty-seventh street.....	Egan avenue.....	137 35
7,084	25	Belden avenue.....	Fremont street.....	Racine avenue.....	256 75
7,085	30	West Clybourn place.....	Ashland avenue.....	Robey street.....	306 50

7,104	6	Church street.....	Archer avenue.....	Fuller street.....	67 70
7,105	6	Diller street.....	Fulton street.....	West Kinzie street.....	67 70
7,110	7	Illinois avenue.....	Thirty-second street.....	Thirty-third street.....	77 65
7,137	7	West Fourteenth street.....	Wood street.....	Lincoln street.....	77 65
7,138	4	Smart street.....	West Kinzie street.....	Austin avenue.....	46 80
7,139	8	Bonfield street.....	Archer avenue.....	Lyman street.....	87 60
7,179	34	West Division street.....	Lincoln street.....	Western avenue.....	346 30
7,180	10	Elk Grove street.....	Wood street.....	North avenue.....	107 50
7,181	47	Wood street.....	Archer avenue.....	Egan avenue.....	475 65
7,182	28	Girard street.....	Milwaukee avenue.....	West Clybourn place.....	286 60
7,246	33	West Twelfth street.....	Ashland avenue.....	Ogden avenue.....	366 20
7,247	6	Holt street.....	North avenue.....	Wabansia avenue.....	67 70
7,283	17	Western avenue.....	West Indiana street.....	West Chicago avenue.....	177 15
7,288	6	Brigham street.....	Ashland avenue.....	Paulina street.....	67 70
7,289	5	Diller street.....	West Indiana street.....	West Ohio street.....	57 75
7,291	12	Butler street.....	Twenty-ninth street.....	Thirty-first street.....	127 40
7,292	13	Hanover street.....	Twenty-ninth street.....	Thirty-first street.....	137 35
7,293	12	Parnell avenue.....	Twenty-ninth street.....	Thirty-first street.....	127 40
7,294	20	Wentworth avenue.....	Sixteenth street.....	Archer avenue.....	207 00
7,295	10	Sheridan place.....	Wentworth avenue.....	Its western terminus.....	107 50
7,296	8	Purple street.....	Twentieth street.....	Archer avenue.....	87 60
7,297	6	Hull street.....	Eugenie street.....	Menomonee street.....	67 70
7,350	5	Pleasant street.....	Division street.....	Vedder street.....	57 75
7,351	8	Vine street.....	Division street.....	Rees street.....	87 60
7,352	21	Holt street.....	West Division street.....	North avenue.....	226 00
1,106					\$11,596 25

## STATEMENT OF ASSESSMENTS FOR LAYING STONE SIDEWALKS.

Warrant No.	SIDE	NAME OF STREET.	FROM	TO	AMOUNT OF ASSESSMENT.
6,683	N	Quincy street.....	La Salle street.....	Fifth avenue.....	\$ 875 50
6,684	B	Fourth avenue.....	Jackson street.....	Van Buren street.....	5,608 35
6,686	W	Clark street.....	Jackson street.....	Van Buren street.....	4,187 98
6,692	B	Fifth avenue.....	South Water street.....	Adams street.....	9,671 70
6,739	B	Ritchie place.....	Goehe street.....	Banks street.....	609 90
6,824	B	Calumet avenue.....	Thirty-first street.....	Douglas avenue.....	8,895 12
6,827	B	West Madison street.....	Canal street.....	Halsted street.....	46,827 88
7,341	W	Michigan avenue.....	Washington street.....	Adams street.....	2,243 99
7,393	B	Dearborn avenue.....	Chicago avenue.....	North avenue.....	7,670 40
7,394	B	Park avenue.....	Ashland avenue.....	Lincoln street.....	2,339 75
7,395	B	Vernon avenue.....	Thirty-first street.....	Thirty-fourth street.....	717 50
7,396	B	Calumet avenue.....	Twenty-sixth street.....	Thirty-first street.....	3,556 80
Total.....					\$93,204 87

## SUMMARY.

Total assessments for  
wooden block pave-  
ment, including curb-  
ing and filling:

North Division.....	\$ 239,540 91	
South Division.....	472,512 61	
West Division.....	1,085,292 96	
	<hr/>	\$1,797,346 48

Total assessments for  
miscellaneous street  
and alley improve-  
ments:

North Division.....	61,925 50	
South Division.....	522,376 04	
West Division.....	203,722 34	
	<hr/>	788,023 88

Total assessments for  
laying private drains:

North Division.....	4,043 00	
South Division.....	41,126 00	
West Division.....	71,668 80	
	<hr/>	116,837 80

Total assessments for  
laying water service  
pipes:

North Division.....	9,651 05	
South Division.....	64,982 90	
West Division.....	97,471 40	
	<hr/>	172,105 35

Carried forward.....\$2,874,313 52

Brought forward.....	\$2,874,313 52	
Total assessments for street and alley open- ings and widenings:		
North Division.....	6,729 33	
South Division.....	22,275 83	
West Division.....	84,206 46	
	<hr/>	113,211 62
Total assessments for constructing plank sidewalks:		
North Division.....	17,496 47	
South Division.....	30,796 00	
West Division.....	115,642 47	
	<hr/>	163,934 94
Total assessments for the erection of gas lamp posts:		
North Division.....	6,173 60	
South Division.....	13,243 68	
West Division.....	31,889 52	
	<hr/>	51,306 80
Total assessments for the erection of oil lamp posts:		
North Division.....	568 40	
South Division.....	3,639 15	
West Division.....	7,388.70	
	<hr/>	11,596 25
Carried forward.....	\$3,214,363 12	

## SPECIAL ASSESSMENT DEPARTMENT.

253

Brought forward.....	\$3,214,363 12	
Total assessments for stone sidewalks:		
North Division.....	8,280 30	
South Division.....	35,756 94	
West Division.....	49,167 63	
		93,204 87
Grand Total.....	\$3,307,567 99	

The following list show the total of assessments made in each year since 1861 :

For the year ending April 1, 1862.....	\$	42,635	49
For the year ending April 1, 1863.....		46,493	67
For the year ending April 1, 1864.....		389,169	31
For the year ending April 1, 1865.....		103,576	35
For the year ending April 1, 1866.....		802,574	56
For the year ending April 1, 1867.....		317,206	18
For the year ending April 1, 1868.....		1,354,436	48
For the year ending April 1, 1869.....		2,395,683	03
For the year ending April 1, 1870.....		2,836,852	48
For the year ending April 1, 1871.....		2,359,835	89
For the year ending April 1, 1872.....		62,222	25
For the year ending April 1, 1873.....			
For the year ending April 1, 1874.....		749,460	27
For the year ending April 1, 1875.....		723,254	42
For the nine months ending January 1, 1876		60,585	72
For the year ending January 1, 1877.....		1,516,081	07
For the year ending January 1, 1878.....		124,498	48
For the year ending January 1, 1879.....		284,900	45
For the year ending January 1, 1880.....		588,963	44
For the year ending January 1, 1881.....		980,895	50
For the year ending January 1, 1882.....		1,227,169	71
For the year ending January 1, 1883.....		1,395,372	98
For the year ending January 1, 1884.....		2,232,757	04
For the year ending January 1, 1885.....		2,857,905	28
For the year ending January 1, 1886.....		2,889,544	80
For the year ending January 1, 1887.....		3,307,567	99
Total for twenty-six years.....		29,669,642	83

Respectfully submitted,

H. J. JONES,

*Superintendent Special Assessments.*

# BOOK-KEEPER'S STATEMENT

FOR 1886.

CHICAGO, December 31, 1886.

W. H. PURDY, Esq.,

*Commissioner of Public Works.*

DEAR SIR: I herewith respectfully submit statement in detail, of the receipts and expenditures of your department for the year 1886.

## WATER FUND.

### RECEIPTS.

#### *Acc't Current Rents:*

Amount collected  
during the year for  
current water rents,  
assessed.....\$899,030 28

Current rents, meter  
measurement..... 475,781 04  
—————\$1,374,811 32

#### *Acc't Water Service Cocks:*

Amount received for  
tapping permits... \$29,975 46  
Amount received for  
plumbers licenses.. 239 00  
————— 30,214 46

Carried forward, \$1,405,025 78

Brought forward, \$1,405,025 78

*Acc't Meter Department:*

Amount received for labor and material for laying and repairing water pipes for elevator--and general supply of water; also for changing location of hydrants, stop-cocks &c.....	31,112,41	
Amount received for meters, meter fittings, labor &c....	12,321 84	
Amount received for repairing meters...	3,151 40	
Amount received for 1 horse sold.....	20 00	
		46,605 65

*Acc't Water Pipe Extension :*

Amount received for iron water pipe and special castings sold	\$2,021 50	
Amount received for scrap iron sold....	3,498 14	
Amount received for sundries.....	32 25	
		5,551 89

*Acc't Miscellaneous Receipts :*

Amount received from City Comptroller for delinquent water rents.....	26 00	
Carried forward,	\$26 00	\$1,457,183 32

Brought forward,	\$26 00	\$1,457,183 32
Amount deposited by private parties as security for loan of hydrant wrenches..	520 00	
Amount advanced by private parties to lay water pipe....	12,036 08	
Amount received for shut-off charges...	927 15	
Amount received for rent of rookery lot.	2,916 67	
Amount received for labor and material furnished by Pumping Works shop &c...	1,462 63	
	<hr/>	17,888 53
Total receipts		<hr/> <u>\$1,475,071 85</u>

## EXPENDITURES.

*Acc't Water Pipe Extension :*

Paid for—

Labor .....	\$105,310 80
Iron water pipe...	127,918 92
Special castings....	12,187 65
Iron covers.....	4,752 86
Hydrants and stop- cocks .....	21,758 59
Hydrants and stop- cocks chambers valves &c....	4,313 25
Composition and sewer pipe.....	1,992 29

---

Carried forward, \$278,234 36

Brought forward, \$278,234 36	
Bricks.....	5,957 50
Cement.....	2,506 70
Hardware.....	328 18
Pipe fittings.....	98 19
Lumber.....	3,113 41
Packing and Gasket	484 00
Lead.....	14,675 49
Teaming.....	8,298 06
Plumbing.....	3,294 08
Tools and repairing	124 59
Iron work.....	187 70
Blasting material..	122 53
Patterns.....	4 75
Box-sewer.....	400 42
Sand.....	75 00
Stabling expenses.	1,123 28
Rock drilling.....	114 00
Cleaning street....	306 51
Royalty on hydrants	200 00
Wagon and repairing	503 50
Advertising, Print- ing and Station- ery.....	276 05
Use of Horse and Wagon.....	175 00
Stone-cutting.....	181 00
Lamps, Globes and Oil.....	156 65
Signs.....	23 25
Pails.....	10 88
Stove.....	2 54
3 Horses.....	485 00
Paving.....	2,966 20
Traveling expenses	12 00
Hickory poles.....	15 00
Carried forward, \$324,455 82	

## BOOK-KEEPER'S STATEMENT.

259

Brought forward,	\$324,455 82	
Test gauges.....	10 00	
Repairing sidewalk	34 58	
Scrap iron.....	28 66	
Window glazing...	2 94	
1 Stove.....	13 00	
Damages.....	3 75	
Coal.....	3 65	
	<u>\$324,552 40</u>	
Deduct—		
For water pipe furnished Meter De- partment....	\$5,769 01	
Lumber fur- nished West Pumping Works.....	36 91	
	<u>\$5,805 92</u>	
		\$318,746 48
<i>Acc't Water Works Repairs:</i>		
Paid for—		
Labor.....	69,406 06	
Plumbing .....	2,784 50	
Teaming.....	7,384 47	
Paving.....	1,545 95	
Machine work....	1,659 64	
Sewer pipe and covers.....	391 97	
Cement.....	592 71	
Bricks.....	516 00	
Lead.....	686 35	
Lumber.....	198 04	
Hardware.....	218 78	
Stabling expenses.	472 13	
Stone-cutting.....	238 00	
Carried forward,	\$86,094 60	\$318,746 48

Brought forward,	\$86,094 60	\$318,746 48
Gasket.....	50 00	
Grading.....	255 00	
Tools.....	6 50	
Sand.....	72 50	
Oil .....	13 85	
Brooms .....	2 75	
Advertising.....	5 92	
		<hr/> \$86,501 12

*Acc't North Pumping Works:*

Paid for—

Salaries of Engineers, Firemen oilers, and labor...	30,402 12
Coal.....	86,515 07
Oils, paint &c.....	1,344 64
Teaming.....	643 45
1 Pump.....	365 50
Fly-wheel .....	743 75
Belting and Gasket	48 56
Packing .....	263 16
Hardware.....	73 75
Waste .....	209 90
Gas.....	859 58
Lumber.....	201 04
Boiler repairs.....	278 66
Pipes and fittings..	142 56
Tools .....	15 31
Brooms .....	20 88
Cement .....	2 00
Iron-work .....	22 48
Steam-fitting.....	14 25
Soap and Tallow..	41 18
Mason work.....	88 00
Freight .....	27 90

---

Carried forward, \$122,323 74 \$405,247 60

# BOOK-KEEPER'S STATEMENT.

261

Brought forward, \$122,323 74 \$105,247 60

Castings.....	6 48	
Fire clay.....	3 00	
Scales.....	198 00	
Use of Telephone..	175 00	
Sprinkling.....	48 00	
Ice.....	12 15	
Stabling expenses..	190 04	
Books, Stationery and Advertizing	39 05	
Gauge glasses.....	9 00	
Recording charts...	10 00	
Diagrams for report	45 00	
Sundries.....	13 25	
		\$123,072 71

## *Acc't North Pumping Works Extension:*

Paid for—

Machinery .....	85,000 00
Labor.....	50,674 56
Stone.....	6,746 60
Roof, on account..	2,630 60
Lumber.....	2,305 68
Iron cylinders.....	1,471 99
Cement .....	2,590 20
Teaming.....	1,550 34
Bricks.....	5,322 25
Masonry .....	921 45
Tools and repairing	844 80
Horizontal engine.	126 50
Engineering.....	69 00
Water gates.....	675 00
Printing and adver- tising.....	58 49
Blue prints.....	38 02
Steel and iron work	177 50

Carried forward, \$161,202 98 \$528,320 31

Brought forward, \$161,202 98	\$528,320 31
Smoke-stack .....	25 00
Freight .....	24 04
Fire bricks.....	14 15
Rubber goods.....	34 22
Belting.....	12 64
Oil and lamps.....	18 23
Sewer pipe.....	11 28
Steam gauges.....	4 50
Packing and valves	2 98
Lead.....	1 40
Mounting drawings	1 00
Pipe fitting.....	127 57
Hardware .....	82 31
	<hr/>
	\$161,562 30

*Acc't New Shore Inlet:*

## Paid for--

Labor.....	18,056 83
Constructing pier..	12,906 91
Cement.....	1,872 55
Bricks.....	7,431 00
Steel and iron.....	1,046 53
Caissons. ....	999 99
Gate.....	500 00
Lumber.....	379 53
Teaming.....	158 00
Lamps and oil.....	63 94
Tools.....	57 91
Steam fitting.....	45 02
Hardware.....	19 15
Rubber goods.....	12 04
Lead.....	4 37
Printing and adver-	
tising .....	74 12
Sundries.....	8 50
	<hr/>
	\$43,636 39
Carried forward,	<hr/>
	\$733,519 00

Brought forward, \$733,519 00  
*Acc't West Pumping Works:*

Paid for—

Labor.....	36,391 26
Coal.....	48,284 90
Rep'g Machinery..	1,416 79
Machine work ....	838 82
Lubricators.....	2,626 86
Packing and gasket	325 28
Fire brick .....	405 00
Blacksmithing.....	264 32
Hardware .....	229 72
Belting and leather	17 00
Waste .....	250 22
Castings and fittings	193 59
Lumber .....	478 96
Springs.....	29 75
Paving boiler room	529 62
Rubber goods.....	1,139 84
Steam hose.....	28 25
Gauge glasses.....	2 00
Tools .....	18 95
Blankets.....	27 00
Brooms and pails..	23 25
Lamps &c.....	16 05
Use of pump.....	56 30
Paint and oil.....	151 86
Lime.....	1 20
Grinding bricks...	12 00
Sand.....	2 25
Coke.....	8 20
Teaming .....	78 70
Expressing.....	90
Advertizing.....	3 60
Printing.....	1 63

---

Carried forward, \$93,854 07 \$733,519 00

Brought forward	\$93,854 97	\$733,519 00
Soap.....	20 45	
Use of telephone..	175 00	
Pattern work,....	2 45	
Diagrams for report	55 00	
Desk .....	57 00	
Covering steam		
pipes.....	76 80	
1 pump .....	150 00	
Stabling expenses..	88 64	
		<hr/>
		\$94,479 41

*Acc't Meter Department :*

## Paid for—

Meters, meter coun-		
ters, etc.....	12,130 16	
Meter-fittings.....	1,925 96	
Labor.....	16,672 70	
Water pipes and		
castings .....	843 09	
Lumber.....	550 16	
Hardware .....	84 67	
Sawdust.....	20 25	
Sand.....	13 75	
Paint and oil.....	1 75	
Bricks.....	1,174 00	
Cement.....	481 84	
Sewer pipe.....	109 25	
Lead.....	881 45	
Water pipe.....	5,769 01	
Sealing wax.....	2 00	
Machine work....	1,806 61	
Pitch and tar.....	9 00	
Teaming.....	428 60	
Stabling and horse-		
shoeing.....	607 72	
		<hr/>
Carried forward,	\$43,511 97	\$827,998 41

Brought forward,	\$43,511 97	\$827,998 41
Tools and repairing	128 57	
Paving.....	5 00	
Candles and matches.....	8 00	
Advertising.....	1 78	
Rebates.....	4,550 76	
Money refunded...	295 00	
1 Horse.....	165 00	
Plumbing.....	87 35	
Freight.....	75	
	<u>\$18,754 18</u>	
Deduct—		
For increase of Meter Department stock.....	1,701 06	
For transfer to Acc't "Advances"....	49 08	
	<u>\$1,750 14</u>	
		\$47,004 04

*Acc't Water and Drainage Commission:*

Paid for—		
Salaries of Engineers, Assistants, rodmen and labor	24,553 61	
Transportation of surveying parties board, meals, &c	3,199 57	
Tug service.....	1,922 45	
Instruments, tools and repairing....	892 97	
Gauges, registers and buoys.....	414 38	
Iron work.....	334 34	
	<u>\$31,317 32</u>	
Carried forward,	\$31,317 32	\$875,002 45

Brought forward, \$31,317 32 \$875,002 45

Hardware.....	220 70
Maps .....	205 00
Inspecting.....	185 70
Printing and Sta- tionery.....	189 45
Rewards.....	202 99
Furniture.....	124 59
Drawing material..	94 84
Lumber.....	56 97
Bottles and glass- ware.....	52 80
Transcribing records	40 00
Rubber goods.....	11 00
Paint and oil.....	10 06
Sundries.....	108 36

---

\$32,819, 78

*Acc't Water Service Cocks:*

Paid for--

Labor.....	\$22,615 31
Printing.....	27 00
I r o n stop-cock boxes.....	108 75
Corporation taps..	5,246 81
Plumbing .....	20 02
Box covers and screws.....	45 00
Washers.....	45 00
Brass plugs.....	6 60
Tools .....	13 40
Freight.....	25
Damages.....	10 00
Inspection.....	66 65
Books and sta- tionery.....	43 00

---

Carried forward, \$28,247 79 \$907,822 23

Brought forward,	\$28,247 79	\$907,822 23
Rebate.....	36 75	
Advertising.....	14 72	
Stabling expenses.	1,479 52	
Machine work....	161 42	
	<u>\$29,940 20</u>	
Deduct--		
For increase of		
stock.....	65 60	
	<u></u>	\$29,874 60

*Acc't Lake Tunnel Crib:*

## Paid for—

Salary of keeper		
and labor.....	\$2,239 50	
Tug service.....	1,126 02	
Meals for laborers.	416 00	
Fuel.....	337 00	
Paint and oil.....	78 39	
Cement.....	11 00	
Tools.....	15 06	
Hardware.....	44 14	
Rubber goods.....	31 50	
Pulleys, belting and		
rope.....	42 42	
Machine work....	69 86	
One boat.....	70 00	
Repairing boat....	23 26	
Pump cylinder....	5 75	
Advertising.....	20 16	
Sundries.....	26 38	
	<u></u>	\$4,556 44

*Acc't Water Office Expenses and Salaries:*

## Paid for—

Books, printing and		
stationery.....	1,286 15	
	<u></u>	
Carried forward,	\$1,286 15	\$942,253 27

Brought forward,	\$1,286 15	\$942,253 27
Binding books and papers .....	75 54	
Car fare .....	2,219 96	
Postage .....	278 20	
Advertising .....	235 36	
Tools .....	186 75	
Hardware .....	15 33	
Altering office fix- tures .....	522 67	
Steam fitting .....	64 37	
Marble slab .....	126 56	
Window railing and doors .....	101 70	
Service of stenogra- pher .....	133 60	
Special police badges .....	59 00	
Electric bell and light .....	28 58	
One city directory.	5 00	
C a n d l e s and matches .....	32 00	
One adding ma- chine .....	15 00	
Oil .....	21 49	
Furniture .....	19 00	
Rubber stamps ....	15 05	
Sundries .....	14 50	
	<u>\$5,455 81</u>	
<i>Water Office Salaries:</i>		
Collecting Dept...	59,038 89	
Assessor's Dept...	12,484 88	
Inspectors .....	36,231 40	
Shut-off Men .....	14,523 97	
Extra service .....	<u>1,916 46</u>	
		<u>\$129,651 41</u>
Forward,		\$1,071,904 68

Brought forward,	\$1,071,904 68	
<i>Acc't Water Proportional Office</i>		
<i>Expenses and Salaries:</i>		
Paid for—		
Blank books, printing and stationery	\$505 64	
Newspapers .....	22 64	
Wood cut.....	4 25	
Pigeon-hole boxes..	51 03	
Car fare.....	23 95	
Postage.....	33 91	
Advertising .....	25 59	
Rubber goods.....	8 50	
Draughting material.....	96 60	
Chalk.....	68	
Vault fixtures.....	61 19	
Furniture repairs..	2 30	
Express charges...	50	
Binding council proceedings.....	1 25	
Part of cost of annual report.....	328 63	
	<u>\$1,166 66</u>	
$\frac{1}{8}$ salaries of Commissioner, Secretary, Book Keeper and others.....	\$4,393 30	
	<u>\$5,559 96</u>	
Carried forward,	\$1,077,464 64	

Brought forward, \$1,077,464 64

*Acc't Miscellaneous Expenditures:*

Paid—

Interest on water loan bonds.....	\$264,814 15	
Sundry persons for money advanced to lay water pipe	17,792 83	
Deposit for hydrant wrenches re- funded.....	270 00	
Water rent refund'd	497 48	
Increase in tapping department stock	65 60	
Increase in meter department stock	1,701 06	
Sundries.....	1,091 33	
		\$286,232 45
Total expenditures ..		<u>\$1,363,697 09</u>

SEWERAGE FUND.

RECEIPTS.

Amount received for drain permits	40,008 40	
Amount received for drain layers' licenses .....	145 00	
		\$40,153 40
Amount appropri- ated by City Council:		
For cleaning catch basins and sewers.....	38,000 00	
Carried forward,	\$38,000 00	\$40,153 40

# BOOK-KEEPER'S STATEMENT.

271

Brought forward,	\$38,000 00	\$40,153 40
For raising catch basins (intersec- tions).....	35,000 00	
For sewerage sink- ing fund.....	500 00	
For river improv- ment sinking fund.....	500 00	
For sewerage sal- aries.....	17,220 00	
For other salaries and office expen- ses payable from sewerage fund..	5,560 00	
For new sewers...	175,000 00	
For deficiency in collecting taxes..	2,775 60	
For refunding mon- ey advanced....	12,000 00	
		<hr/> \$286,555 60
Amount advanced by sundry per- sons for construct- ing sewers.....	13,177 00	
Amount received from village of Jefferson on ac- count of Western Ave. sewer (in- cluding \$540 00 interest).....	1,540 00	
Amount received from village of Jefferson for build- ing catch basins	615 88	
Carried forward,	\$15,332 88	<hr/> \$326,709 00

Brought forward,	\$15,332 88	\$326,709 00
Amount received from special assessment fund for building catch basins.....	16,241 00	
Amount received from private parties for building catch basins....	727 00	
Amount received from private parties for miscellaneous sewerage work.....	3,113 75	
Amount received for iron covers..	896 84	
Amount received for sewer pipe...	448 34	
Amount received for cement.....	327 88	
Amount received for sewer brick..	771 92	
Amount received for wooden covers	355 73	
Amount received for teaming.....	387 05	
	<hr/>	\$38,602 39
Total receipts		<hr/> <u>\$365,311 39</u>

## EXPENDITURES.

*Acc't Sewers North Division:*

Paid for—

Labor.....	1,923 09
Constructing sewers (contractors)	9,704 77
Covers.....	179 42

---

 Carried forward, \$11,807 28

Brought forward,	\$11,807 28	
Pipe.....	153 76	
Brick.....	11 52	
Cement.....	13 00	
Teaming.....	148 20	
Catch basins.....	2,018 78	
Paving.....	28 50	
Plumbing.....	109 85	
Pails.....	27 75	
Advertising.....	6 32	
Depreciation of stock	10 00	
Cash payments....	14,334 96	
Deduct—		
Amount charge-		
able to house		
• drains for slants		
furnished.....	253 53	
		\$14,081 43

*Acc't Sewers South Division:*

## Paid for—

Labor.....	\$ 5,092 08	
Earth filling.....	126 40	
Plumbing.....	422 90	
Teaming.....	335 65	
Paving.....	222 47	
Constructing sew-		
ers (contractors)	30,521 74	
Wooden covers....	642 72	
Iron covers.....	24 88	
Pipe.....	345 00	
Brick.....	138 24	
Sand.....	8 00	
Cement.....	80 00	
Catch-basins.....	3,749 15	
Carried forward,	\$41,709 23	\$14,081 43

Brought forward,	\$41,709 23	\$14,081 43
Repairing railroad		
tracks .....	12 94	
Advertising .....	11 44	
Depreciation of		
stock .....	17 50	
Cash payments .....	\$41,751 11	
Deduct—		
Amount chargeable		
house drains for		
slants furnished.	1,462 60	
		\$40,288 51

*Acc't Sewers West Division:*

## Paid for—

Labor .....	\$ 9,413 20
Constructing sew-	
ers (contractors)	105,184 52
Paving .....	30 78
Teaming .....	646 85
Plumbing .....	824 65
Removing earth...	198 14
Wooden covers...	1,260 72
Iron covers .....	267 46
Sewer pipe .....	1,145 43
Sewer brick .....	108 96
Sand .....	6 00
Cement .....	91 00
Catch-basins .....	8,651 89
Advertising .....	17 22
Repairing tools ...	3 90
Coal .....	24 13
Depreciation of	
stock .....	42 50
Cash payments .....	\$127,917 35

Carried forward,	\$54,369 94
------------------	-------------

Brought forward,	\$54,369 94
Deduct—	
Amount chargeable to house drains for slants fur- nished .....	2,971 72
	<hr/> \$124,945 63

*Acc't House Drains:*

Paid for—	
Labor.....	\$17,636 13
Relaying and re- pairing drains...	138 31
Plumbing .....	4 20
Slants and junctions	5,115 74
Paving.....	129 70
Rubber goods.....	24 00
Iron covers.....	6 22
Sewer pipe.....	114 15
Sewer bricks.....	3 84
Cement.....	12 00
Teaming.....	665 95
Advertising .....	11 84
Books, printing and stationery.....	178 25
Depreciation of stock .....	25 00
	<hr/> \$24,065 33

*Acc't Cleaning Sewers and Catch-basins:*

Paid for—	
Labor.....	\$39,410 36
Teaming.....	11,048 95
Repairing tools....	72 40
Iron.....	69 31
Rubber goods.....	40 31
	<hr/>
Carried forward,	\$50,641 33 \$203,380 90

Brought forward,	\$50,641 33	\$203,380 90
Oil and grease....	10 37	
Rope and chain...	15 29	
Candles.....	32 00	
Hardware.....	5 00	
Blacksmithing.....	10 70	
Oakum.....	8 00	
Repairing flushing wagon.....	19 90	
Depreciation of stock .....	396 42	
Printing.....	5 75	
	<hr/>	\$51,144 76

*Acc't Repairing Sewers and Catch-basins:*

Paid for—

Labor.....	\$6,445 32	
Iron work.....	10 13	
Iron covers.....	1,343 51	
Lumber.....	8 50	
Cement.....	626 79	
Sewer brick.....	1,199 59	
Sewer pipe.....	410 76	
Teaming.....	1,922 20	
Wooden covers....	2,703 22	
Sand.....	37 70	
Coal.....	1 95	
Paving.....	254 55	
Meals.....	5 50	
Depreciation of stocks.....	98 58	15,068 30
	<hr/>	

*Acc't Intersections:*

Paid for—

Labor.....	12,777 39	
Wooden covers....	4,315 56	
	<hr/>	
Carried forward,	\$17,092 95	\$269,593 96

Brought forward,	\$17,092 95	\$269,593 96
Iron covers.....	6,952 00	
Sewer pipe.....	243 74	
Sewer brick.....	6,125 72	
Sand.....	231 55	
Cement.....	2,957 28	
Teaming.....	1,770 65	
Repairing tools....	43 55	
Oil.....	8 16	
Blacksmithing.....	6 58	
Depreciation of stock.....	207 16	35,639 34

*Acc't Sewer Office Expenses and Salaries:*

Paid for—

Car fare.....	193 90
Postage.....	32 76
Printing.....	19 15
Advertising.....	29 44
1 City directory...	5 00
Badges.....	12 00
	<u>292 25</u>

Sewerage office sal- aries.....	17,061 96	17,354 21
------------------------------------	-----------	-----------

*Acc't Sewerage Proportional Office  
Expenses and Salaries.*

Paid for—

Books, printing and stationery .....	292 13	
Car fare.....	23 30	
Postage .....	54 64	
Annual report, on acc't.....	328 63	
Rubber stamps....	2 60	
Carried forward,	<u>701 30</u>	<u>\$322,587 51</u>

Brought forward,	\$701 30	\$322,587 51
Newspapers .....	12 51	
Police badges.....	10 00	
	<u>\$723 81</u>	
‡ Salaries of Commissioner, Secretary Book-keeper and others.....	4,193 28	4,917 09
<i>Acc't Miscellaneous Expenses.</i>		
Paid—		
River improvment sinking fund....	500 00	
Sewerage sinking fund.....	500 00	
For constructing catchbasins under special assessments and for private parties..	16,968 00	
Sundry parties, refunding amounts advanced to construct sewers,...	10,998 25	
For labor and material used in sewerage work for private parties..	2,289 07	31,255 32
		<u>358,759 92</u>
Deduct—		
For material used in 1886 from balances of 1885 to wit.....		
Sewer pipe.....	2,408 28	
Iron covers.....	1,375 66	
Sand.....	76 00	3,859 94
Total Expenditure		<u><u>\$354,899 98</u></u>

## APPROPRIATION FUND.

## RECEIPTS.

*Acc't Improved Streets:*

Amount appropriated by City council.....	150,000 00	
Amount received for paving.....	4,436 00	
Amount received for inspection...	2,900 25	
Amount received for use of steam roller.....	1,581 37	
Amount received for using streets.	50 00	
Amount received for cleaning streets.....	86 98	
Amount received for planking streets.....	405 86	
Amount received for old iron sold..	31 80	
Amount received for earth filling..	43 40	
Amount received for scale permits	6 00	
Amount received for removing obstructions .....	12 50	\$159,554 16

*Acc't Unimproved Streets:*

Amount appropriated by City Council.....	128,000 00	
Carried forward, \$128,000 00		\$159,554 16

Brought forward,	\$128,000 00	\$159,554 16
Amount received for constructing and repairing sidewalks.....	292 06	
Amount received from special ass- essment fund for constructing side- walks.....	28,902 55	
Amount received for lumber.....	25 40	
Amount received for wages refun- ded .....	201 88	157,421 69

*Acc't Street Permits:*

Amount received for paving and in- specting.....	9,649 34	
Amount received for using streets.	4,840 75	
Amount received for scale permits	36 00	
Amount received for labor.....	3 00	
	<u>14,529 09</u>	

## Deduct—

Amount transferred from special de- posit account....	<u>2,132 65</u>	
Cash receipts		<u>12,396 44</u>
Carried forward,		\$329,372 49

Brought forward,	\$329,372 49	
<i>Acc't House Moving Permits:</i>		
Amount received for house moving permits.....	4,420 00	
<i>Acc't Repairing Bridges and Viaducts:</i>		
Amount appropriated by City Council...	70,500 00	
Amount received for damages to bridges	253 44	
Amount received for nails and lumber...	104 26	
Amount received for planking approaches	126 25	
Amount received for scrap iron sold....	285 50	
Amount received from C. & N. W. R. R. Co. towards main- tenance of State street viaduct.....	400 00	
Amount received from C. & G. W. R. R. Co. for widening sundry viaducts...	11,315 03	
	<hr/>	82,984 48
<i>Acc't Street Lamps:</i>		
Amount received for horse sold.....	35 00	
Amount received for damages to lamps and posts.....	49 11	
	<hr/>	
Carried forward,	\$84 11	\$416,776 97

Brought forward,	\$84 11	\$416,776 97
Amount received for lamps sold.....	18 00	
Amount received for posts sold.....	5 00	
Amount received from comptroller for la- bor and material for repairing lamps &c	17,010 87	
		<u>17,117 98</u>

*Acc't Public Buildings:.*

Amount appropriated by City Council...	65,120 00	
Amount received for old safes.....	600 00	
		<u>65,720 00</u>

*Acc't Lake Street Bridge: .*

Amount appropriated by City Council...	5,000 00	
Amount received from C. W. Div. R'y Co.....	52,319 40	
		<u>57,319 40</u>

*Acc't Lake Street Viaduct:*

Amount received from Chicago, Evanston & Lake Superior R. R. Co.....	37,825 17	
Amount received for scrap iron sold.....	1,182 67	
		<u>39,007 84</u>
Carried forward,		<u>\$595,942 19</u>

Brought forward,		\$595,942 19
<i>Acc't Twelfth Street Bridge:</i>		
Amount appropriated by City Council...	38,000 00	
Amount received from C. & G. W. R. R. Co. ....	36,712 95	
	<hr/>	74,712 95
<i>Acc't Twelfth Street Viaduct:</i>		
Amount appropriated by City Council...	30,000 00	
Amount received from C. R. I. & P. R. R. Co. and L. S. & M. S. R'y Co. ....	47,978 08	
Amount received from L. S. & M. S. R'y Co. ....	1,150 00	
Amount received from C. & G. W. R. R. Co. ....	308 30	
	<hr/>	79,436 38
<i>Acc't Adams Street Viaduct:</i>		
Amount received from P. Ft. W. & C. R'y Co. ....	63 25	
Amount received from Chicago Passenger R'y Co. ....	3,499 15	
	<hr/>	3,562 40
<i>Acc't Public Benefits:</i>		
Amount appropriated by City Council...	270,000 00	
Amount received for rebates. ....	1,400 00	
	<hr/>	271,400 00
Carried forward,		<hr/> \$1,025,053 92

Brought forward, \$1,025,053 92

*Acc't Miscellaneous Receipts:*

From—

Special assessment fund.....	63,668 12	
Special deposits for permits.....	11,000 00	
Bridge-tenders, wages refunded.	79 58	
Sundries.....	33 00	
	<hr/>	74,780 70

*Acc't Miscellaneous Appropriations:*

For—

Sidewalk intersections, North division.....	2,500 00	
Sidewalk intersections, South division.....	3,000 00	
Sidewalk intersections, West division.....	4,500 00	
General repairs of sidewalks.....	5,000 00	
Eighteenth street bridge.....	34,000 00	
Jackson street bridge.....	75,000 00	
Taylor street bridge	5,000 00	
Webster avenue bridge.....	5,000 00	
Indiana street viaduct.....	30,000 00	
Ogden ditch dam..	1,000 00	
	<hr/>	
Carried forward,	\$165,000 00	\$1,099,834 62

Brought forward, \$165,000 00 \$1,099,834 62

Des Plaines River survey .....	5,000 00	
Canal pumping works.....	35,000 00	
Bridge-tenders sal- aries.....	54,788 60	
Chicago Harbor ..	8,500 00	
La Salle street tun- nel.....	6,500 00	
Washington street tunnel.....	6,000 00	
Fullerton avenue conduit.....	21,500 00	
Ashland avenue improvement...	1,868 45	
Lake Park.....	2,000 00	
Ellis and other parks.....	2,800 00	
Washington and Union squares..	2,500 00	
Commissioners of- fice salaries ....	4,393 84	
Commissioners of- fice expenses...	1,166 66	
Salaries.....	73,386 67	
Street department office expenses..	700 00	
Map department of- fice expenses...	275 00	
Deficiency in col- lecting taxes....	11,359 98	
	<hr/>	402,738 70
Total receipts,		<hr/> <u>\$1,502,573 32</u>

## EXPENDITURES.

*Acc't Improved Streets:*

## Paid for—

Labor.....	57,854 47	
Paving.....	3,507 39	
Cleaning streets...	94,801 18	
Stone and macadam	3,689 01	
Curbing.....	371 23	
Tools and repairing	135 00	
Paint and oil.....	97 16	
Paving blocks.....	4,263 00	
Lumber.....	907 15	
Coal.....	351 60	
Nails and general hardware.....	191 86	
Gravel.....	403 50	
Cross walk.....	33 00	
Repairing Steam roller.....	689 36	
Underground atlas	300 00	
Ground rent.....	100 00	
Advertising.....	20 74	
Sprinkling.....	7 50	
Printing.....	47 73	
Freight.....	3 65	
Constable fees....	4 00	
Transfer to sewer- age fund.....	613 75	
	<hr/>	168,392 28

*Acc't Unimproved Streets:*

## Paid for—

Labor.....	101,182 16	
Lumber.....	30,913 48	
	<hr/>	
Carried forward, \$132,095 64		\$168,392 28

Brought forward, \$132,095 64 \$168,392 28

Nails and general hardware.....	2,918 70	
Tools and repairing	571 55	
Stone and macadam	5,240 45	
Teaming.....	56 37	
Curbing.....	51 00	
Stove and pipe....	7 15	
One plow.....	30 00	
Fittings for road machine.....	12 00	
Cleaning vaults ...	30 00	
Advertising .....	26 23	
Ground rent.....	229 05	
	<hr/>	141,268 14

*Acc't Sidewalk Intersections:*

*North Division.*

Paid for—		
Labor.....	824 00	
Lumber.....	213 56	
Hardware.....	78 60	
	<hr/>	1,116 16

*South Division.*

Paid for—		
Labor.....	1,046 00	
Lumber.....	298 34	
Hardware.....	69 50	
	<hr/>	1,413 84

*West Division.*

Paid for—		
Labor.....	3,214 27	
Lumber.....	1,616 50	
Hardware.....	23 50	
	<hr/>	4,854 27

Carried forward, \$317,044 69

Brought forward, \$317,044 69

*Acc't Sidewalk General Repairs:*

Paid for—

Labor.....	5,912 82	
Lumber.....	1,634 03	
Hardware.....	150 20	
	<hr/>	7,697 05

*Acc't Public Buildings.*

Operating and main-  
taining City Hall,  
(a—Operating Ex-  
penses).....

Paid for—

Coal.....	22,009 97	
Salaries of Engin- eers, Firemen & labor.....	16,307 31	
Packing and waste.	315 56	
Rope.....	4 81	
Machine work and pipe fittings.....	127 93	
Hardware.....	47 07	
Oil .....	622 94	
Lamps.....	1,832 66	
Gas bills.....,	608 40	
Fire brick and clay	46 00	
Repairing boilers..	49 80	
Repairing elevators.	52 77	
Repairing dynamo Engine.....	24 83	
Changing steam pipes.....	190 00	
Wheel barrows....	5 50	
Piston rod.....	73 75	
Advertising.....	7 00	42,326 30
	<hr/>	

Carried forward, \$367,068 04

Brought forward, \$367,068 04

(b—Maintenance.)

Labor.....	22,791 34	
Packing.....	35 78	
Soap, Mops, Brooms &c.....	586 43	
Hardware.....	145 47	
Paint and oil.....	140 33	
Glass.....	151 02	
Steamfitting..	423 62	
Lumber.....	277 91	
Plumbing.....	96 75	
Sprinkling.....	437 14	
Desks, chairs, car- pets &c.....	376 29	
Ice.....	138 20	
Grease and tallow.	17 90	
Belting.....	8 00	
Rope.....	9 74	
Iron work.....	37 49	
Frescoing.....	719 59	
Cleaning catch- basins.....	6 00	
Cement.....	9 25	
File-cases.....	125 00	
Towels.....	39 50	
Toilet paper.....	95 20	
Fire brick and clay.	18 00	
Carpenter work....	618 50	
Desk cloth and oil- cloth.....	23 80	
Electric call bells..	28 00	
Sign painting.....	23 50	
Repairing scales...	2 00	
Advertizing.....	9 84	

---

Carried forward, \$27,391 59      \$367,068 04

Brought forward,	\$27,391 59	\$367,068 04
Repairing boiler...	43 84	
Repairing lightning rod.....	67 50	27,502 93

*Acc't Street Permits:*

## Paid for—

Labor and inspect- ing.....	5,031 52	
Books, printing and Stationery.....	96 05	
Paving.....	2,109 08	
Curbing.....	113 80	
Rebates.....	23 75	
Constables fees....	25 00	7,399 20

*Acc't Lake Park:*

## Paid for—

Labor (including keepers salary...	1,468 13	
Oil.....	3 40	
Repairing lawn mowers.....	18 10	
Sprinkling.....	34 30	1,523 93

*Acc't Vernon Park:*

## Paid for—

Labor.....	60 00
------------	-------

*Acc't Union Square:*

## Paid for—

Lawnseed.....	5 00	
Plumbing.....	52 08	
Sprinkling and hose	25 55	
Labor.....	307 12	389 75

Carried forward, \$403,943 85

Brought forward,		\$403,943 85
<i>Acc't Ellis Park:</i>		
Paid for—		
Labor (inclu d i n g		
keepers salary...	755 52	
Grass seed.....	3 60	
Oil .....	1 10	
Hose and couplings	25 19	785 41
<i>Acc't Campbell Park:</i>		
Paid for—		
Labor.....		143 00
<i>Acc't Douglas Monument Square:</i>		
Paid for—		
Labor (including		
keepers salary)..	613 85	
Plumbing.....	47 90	
Relaying flag stone	5 00	
Seed.....	3 05	
Repairing tools....	6 00	675 80
<i>Acc't Aldine Square:</i>		
Paid for—		
Labor (inclu d i n g		
keepers salary)..	612 50	
Repairing green-		
house. ....	99 80	
Coal.....	36 75	749 05
<i>Acc't Washington Square:</i>		
Paid for—		
Labor.....	686 25	
Trees .....	370 00	
Curbing.....	475 08	
Tools and repairing	14 45	
Carried forward,	\$1,545 78	\$406,297 11

Brought forward,	\$1,545 78	\$406,297 11
Paving.....	106 75	
Lumber.....	80 37	
Paint and oil.....	12 50	
Plumbing.....	47 95	
Sprinkling.....	182 00	1,975 35

*Acc't House Moving Permits:*

## Paid for—

Salaries.....	2,100 00	
Permit refunded...	5 00	
Books, printing and stationery.....	91 70	
Constable's fees....	22 00	
Keeping horse.....	54 00	2,272 70

*Acc't Street Lamps:*

## Paid for—

Labor.....	4,697 52	
Paint and oil.....	239 72	
Lamp fixtures.....	4,376 73	
Tin and hardware..	1,026 22	
Glass.....	1,520 70	
Lamps and posts..	2,350 70	
Solder.....	219 86	
Charcoal.....	34 00	
Bridge lamps.....	2,900 00	
Plumbing.....	9 16	
Gas.....	50 90	
Lumber.....	2 75	
Coke.....	19 00	
Tools.....	9 00	
Signs.....	47 25	
2 horses.....	245 00	
1 wagon.....	175 00	
Repairing wagon..	61 80	
Carried forward,	\$17,985 31	\$410,545 16

Brought forward,	\$17,985 31	\$410,545 16
Use of horse and wagon .....	154 05	
Horse feed.....	160 65	
Horse Medicine ...	7 00	
Horse blankets....	25 25	
Horse shoeing....	39 90	
Harness and repair- ing.....	66 87	
Hose and fittings..	5 11	
Shop and barn rent	487 50	
Stove.....	17 00	
Advertising.....	13 93	
Sundries.....	10 07	18,972 64

*Acc't Public Benefits:*

Paid for—

Improving city's portion of streets (intersections)...	273,714 45
--	------------

*Acc't Washington Street Tunnel:*

Paid for—

Labor.....	2,289 80	
Coal.....	128 80	
Electric lamps and maintenance....	533 32	
Cement .....	7 25	
Whitewashing....	189 00	
Lumber.....	885 66	
Steam and gas fit- ting.....	192 37	
Machine-work....	113 94	
Hardware .....	19 52	
Teaming.....	2 00	4,361 66

Carried forward,	\$707,593 91
------------------	--------------

Brought forward, \$707,593 91

*Acc't La Salle Street Tunnel:*

Paid for—

Labor.....	1,983 26	
Coal.....	100 22	
Electric lamps and maintenance....	537 11	
Steam and Gas fit- ting.....	138 08	
White washing....	178 00	
Repairing pump...	9 70	
Packing and salt...	2 60	
Lumber.....	102 33	
Hardware.....	34 83	
Oil.....	2 69	
Repairing boiler...	75 75	3,164 57

*Acc't Chicago Harbor:*

Paid for—

Harbor masters sal- aries and labor..	3,753 82	
Dredging.....	6,174 75	
Tug service.....	126 00	
Repairing boat....	11 00	
Paints and oil....	4 60	
Hardware .....	4 50	
Lumber .....	62 00	10,136 67

*Acc't Canal Pumping Works:*

(Construction.)

Paid for—

Expert services test- ing pumps.....	1,744 75	
Machinery, Final Estimate.....	26,417 43	28,162 18

Carried forward, \$749,057 33

## BOOK-KEEPER'S STATEMENT.

295

Brought forward, \$749,057 33  
*Acc't Canal Pumping Works:*  
 (Operating and maintaining.)

Paid for—

Engineers, firemen, oilers and labor.	13,191 27	
Attending and main taining lock.....	2,225 00	
Coal.....	24,000 72	
Oil and grease....	677 20	
Packing.....	174 27	
Stone.....	211 75	
Steam fitting.....	34 11	
Steel, brass, iron and hardware...	137 72	
Machine-work.....	40 73	
Teaming.,.....	34 70	
Tools.....	28 31	
Fire-brick and clay.	12 50	
Pump-valves.....	16 32	
Rope.....	4 94	
Lumber.....	90 48	
Castings.....	26 94	
Wheel scales.....	29 40	
Gauge glasses.....	3 90	
Glass.....	8 33	
Cement and lime..	5 30	
Lamps, chimneys and wicks.....	11 92	
Roofing shed.....	3 00	
Advertising.....	4 59	40,973 40

*Acc't Bridge Repairs:*

Paid for—

Labor.....	30,151 45
Lumber.....	17,324 87

Carried forward, \$47,476 32 \$790,030 73

Brought forward,      \$47,476 32      \$790,030 73

Machine and iron work.....	5,118 75	
Coal.....	2,626 93	
Plates, bolts and hardware.....	1,863 38	
Lamps, globes &c.	402 45	
Paving.....	633 49	
Plumbing .....	43 87	
Castings.....	20 20	
Pile driving, dock- ing and dredging	8,081 38	
Bridge wheels.....	93 48	
Tug service.....	49 96	
Doors and windows	20 48	
Cement .....	30 00	
New tracks.....	3,971 00	
Repairing scow....	113 38	
Chain.....	123 10	
Carbons &c.....	85 29	
Paint and oil.....	1,592 03	
Stone.....	196 00	
Sign painting.....	2 00	
Clocks and repair- ing.....	20 50	
Bell.....	31 50	
Brooms .....	9 50	
Gasket and waste..	44 41	
Hose and couplings	12 16	
Freight.....	38 06	
Advertising and printing.....	16 57	
Engineer supplies.	275 92	
Damages.....	635 82	73,627 93

Carried forward,      \$863,658 66

## BOOK-KEEPER'S STATEMENT.

297

Brought forward, \$863,658 66

*Acc't Viaduct Repairs:*

## Paid for—

Labor.....	13,429 13	
Teaming.....	741 10	
Hardware.....	392 69	
Iron work.....	317 50	
Plumbing.....	108 49	
Paving.....	12 80	
Lumber.....	2,214 60	
Inspecting iron....	137 00	
Blue prints.....	97 42	
Printing specifica-		
tions.....	15 00	
Car fare.....	4 00	
		17,469 73

(Note—This amount includes \$11,315.08 for labor and material used in widening sundry viaducts for C. & G. W. R'y Co., see receipts.)

*Acc't Fullerton Avenue Conduit:*

## Paid for—

Salaries of engineers		
firemen and labor	7,311 62	
Coal.....	7,392 21	
Paint, oil and		
grease.....	599 27	
Castings.....	111 10	
Steam fittings....	4 05	
Teaming.....	19 20	
Lumber.....	151 78	
Rubber valves....	25 20	
Sheet iron.....	2 79	
Soap.....	6 03	
Gasket and packing	15 54	

Carried forward, \$15,638 79 \$881,128 39

Brought forward,	\$15,638 79	\$881,128 39
Brooms and scoops	27 72	
Machine and iron		
work.....	254 79	
Tools.....	5 86	
Fire brick, clay and		
lime.....	37 50	
Hardware.....	108 70	
Plumbing.....	3 75	
Advertising.....	3 07	
	<hr/>	16,080 18

*Aco't Twelfth Street Viaduct:*

## Paid for--

Substructure.....	49,149 43
Superstructure.....	53,635 00
Printing specifica-	
tions.....	37 25
Blue prints.....	75 25
Advertising.....	33 88
Labor.....	6,901 60
Express charges. .	30
Plumbing....	12 73
Excavating for road	
way.....	591 12
Paving.....	344 90
Teaming.....	6 80
Shot.....	1 25
Windows and door-	
frames.....	10 02
Testing iron.....	493 60
Traveling expenses	12 38
Spikes and hard-	
ware.....	220 20
Lumber.....	4,289 43
Bolts and washers.	86 96

---

Carried forward,    \$115,902 10    \$897,208 57

## BOOK-KEEPER'S STATEMENT.

299

Brought forward, \$115,902 10 \$897,208 57

Sewerage work.... 1,534 88

Truss rods..... 49 14

117,486 12

*Acc't Lake Street Viaduct:*

## Paid for—

Substructure..... 9,745 22

Superstructure .... 26,127 14

Labor..... 960 01

Paving approaches. 1,479 60

Lumber..... 324 93

Testing iron. .... 250 00

Blacksmithing..... 48 19

Teaming..... 33 60

Blue prints..... 4 35

Traveling expenses. 23 80

Paving..... 11 00

39,007 84

*Acc't Adams Street Viaduct:*

## Paid final estimate,

Superstructure.... 3,562 40

*Acc't Centre Avenue Viaduct:*

## Paid for raising build-

ings..... 890 00

*Acc't State Street Viaduct:*

## Paid for—

Avertising..... 21 76

Blue prints..... 60

22 36

*Acc't Lake Street Bridge:*

## Paid for--

Substructrue..... 26,646 28

Superstructure..... 57,533 00

Carried forward, \$84,179 28 \$1,058,177 29

Brought forward,	\$84,179 28	\$1,058,177 29
Electric light.....	662 26	
Re building bridge- house.....	253 75	
Lumber.....	224 06	
Paving approaches.	2,404 51	
Labor.....	1,612 44	
Inspecting iron....	370 57	
Printing specifica- tions.....	20 10	
Operating machin- ery.....	6,531 95	
Advertising.....	4 16	
Nails.....	40 10	
Teaming.....	2 25	
Plumbing.....	59 36	
Curbs, sidewalks and sewers.....	318 19	
Repairing walls....	248 94	
Covering cogwheels	22 75	
Two iron posts....	20 00	
Freight.....	54	
	<hr/>	96,975 21

*Acc't Ashland Avenue Bridge:*

## Paid for--

Labor.....	274 20	
Superstructure ....	3,169 00	
Iron work.....	452 64	
Printing specifica- tion .....	12 50	
Inspecting iron....	54 37	
Teaming.....	3 20	
	<hr/>	3,965 91
Carried forward,		<hr/> \$1,159,118 41

Brought forward, \$1,159,118 41

*Acc't Jackson Street Bridge:*

Paid for—

Engineering and draughting .....	135 00	
Ground rent .....	400 00	
	<u>          </u>	535 00

*Acc't State Street Bridge:*

Paid for—

Advertising .....	28 70	
Printing specifications .....	36 00	
Blue prints .....	34 00	
Engineering and draughting .....	272 49	
	<u>          </u>	371 19

*Acc't Eighteenth Street Bridge:*

Paid for—

Engineering and draughting .....	333 58
----------------------------------	--------

*Acc't Twelfth Street Bridge:*

Paid for—

Labor .....	1,635 41	
Substructure .....	49,326 02	
Superstructure ....	13,650 00	
Protection .....	10,524 51	
Blue prints .....	64 05	
Advertising .....	52 03	
Printing specifications .....	34 25	
	<u>          </u>	75,286 27

Carried forward, \$1,235,644 45

Brought forward, \$1,235,644 45

*Acc't Clark Street Bridge:*

Paid for—

Engineering and draughting.....	328 71	
Printing specifications.....	35 00	
Blue prints.....	67 97	
		431 68

*Acc't Wells Street Bridge:*

Paid for—

Engineering and draughting.....	326 21	
Printing specifications.....	28 00	
Blue prints.....	67 30	
		421 51

*Acc't Ogden Ditch Dam:*

Paid for--

Labor.....	2,221 93	
Watching dam....	200 00	
Teaming.....	140 53	
Board and transportation.....	418 27	
Lumber.....	325 86	
Hardware.....	16 08	
Wheelbarrows....	9 25	
Iron work....	58 98	
		3,390 90

*Acc't Ashland Avenue Improvement:*

Paid final estimate for improving street..

868 45

Carried forward, \$1,240,756 99

## BOOK-KEEPER'S STATEMENT.

303

Brought forward, \$1,240,756 99

*Acc't Canal and Desplaines**River Survey:*

## Paid for—

Labor.....	2,225 00	
Boarding surveying parties.....	515 54	
Transportation....	43 03	
Repairing instruments.....	20 50	
Iron work.....	4 75	
		2,808 82

*Acc't Election Commissioners:*

## Paid for—

Labor.....	72 00	
Counters and railings.....	766 00	
Carpets, &c.....	128 08	
Lumber.....	30 80	
Hardware.....	22 04	
Furniture.....	968 25	
		1,987 17

*Acc't Fire Department:*

## Paid for—

Engineering and Draughting .....	561 62	
Blue prints .....	24 72	
Writing specifications.....	5 00	591 34

Carried forward, \$1,246,144 32

Brought forward, \$1,246,144 32

*Acc't Special Assessments:*

Paid for—

Collecting assess- ments.....	20,010 67	
Making assessments	10,626 00	
Expert services....	3,177 50	
Clerical expenses...	5,222 92	
Appraising build- ings.....	330 00	
Engineering and in- specting.....	5,742 84	
Advertising.....	6,461 11	
Legal expenses....	8,953 85	
Books, printing and stationery.....	1,212 17	
Postage.....	714 50	
Carfare.....	1,192 24	
1 surveying instru- ment.....	225 00	63,868 80

*Acc't Salaries:*

Paid salaries—

Commissioner's offi- cer $\frac{1}{2}$ .....	3,976 65	
Street department office .....	27,705 17	
Special assessment office. ....	19,316 51	
Map office ....	8,316 63	
City Engineers of- fice.....	6,768 44	
Bridge tenders....	52,912 99	118,996 39

Carried forward, \$1,429,009 51

## BOOK-KEEPER'S STATEMENT.

305

Brought forward,	\$1,429,009 51	
<i>Acc't Commissioner's Office Expense:</i>		
Paid for--		
Carfare .....	79 25	
Newspapers.....	9 38	
Books, printing and stationery.....	735 00	
Advertising.....	13 60	
1 clock.....	28 00	
Filling hektograph.	6 00	
On account of annual report.....	268 64	
Postage.....	29 60	
Badges . . . . .	8 00	
Express charges...	3 00	1,180 47
<i>Acc't Street Dept. Office Expense:</i>		
Paid for--		
Books, printing and stationery.....	287 05	
Carfare.....	50 60	
Postage .....	86 50	
Hardware .....	12 60	
Badges.....	30 00	
Repairing instrument. ....	2 00	
Constable's fees. ...	6 00	474 75
<i>Acc't Map Office Expense:</i>		
Paid for--		
Drawing material..	139 30	
Stationery .....	21 30	
Binding maps.....	24 50	
1 city directory....	5 00	190 10
<i>Acc't Special Depositors:</i>		
Paid Rebates.....	1,500 00	
Total Expenditures		<u>\$1,432,354 83</u>

## CITY HALL FUND.

## RECEIPTS.

Amount appropriated by City Council .....	34,160 32	
Amount received from public library fund.....	40,000 00	
Total receipts,		<u>74,160 32</u>

## EXPENDITURES.

## Paid to contractors as follows :

Ed. E. Swiney, fixed furniture .....	1,260 80
Cudell & Meissner entrances and terra cotta work.	3,857 70
R. F. Meissner carpenter work for council com. room and public library.....	18,301 93
Mitchell & Halbach Frescoing.....	2,300 00
Granolithic Co. steps.....	1,619 55
Saml. J. Pope, pumps for 2 elevators.....	2,709 00
Smith & Crimp, plastering .....	300 00
Ellithorpe Air Brake Co. 2 elevators..	5,900 00
Carried forward,	<u>\$36,248 93</u>

Brought forward, \$36,248 98

*Miscellaneous Expenditures:*

Paid for—

Labor.....	2,271 62
Steam and gas fitting.....	1,486 72
Sand.....	21 50
Hardware.....	2,809 55
Felt.....	10 00
Cement.....	33 20
Frames and mouldings.....	419 43
Plastering.....	325 25 .
Frescoing and decorating.....	910 42
Carpenter work...	3,596 27
Chandeliers.....	1,284 58
Electric lamps and fixtures.....	1,365 76
Sky-light and glass.	1,202 40
Marble work.....	2,607 58
Plumbing.....	3,006 26
Railings and wire gates.....	765 50
Bronzing panels...	100 00
Ventilators.....	1,187 65
Foundations for elevators.....	62 00
Mains for dynamo.	732 32
Vault fixtures.....	47 00
Advertising.....	67 29
Vault door.....	95 00
Iron work.....	1,602 69
Lumber.....	537 16

Carried forward,	\$26,547 15	\$36,248 98
------------------	-------------	-------------

Brought forward,	\$26,547 15	\$36,248 98
Lubricators.....	40 00	
Covering steam		
pipes .....	605 70	
Telephone system..	200 00	
Examining carpenter		
work.....	100 00	
Engineer supplies..	17 02	
Drawing material		
and stationery..	21 25	
Furniture.....	664 60	
	<hr/>	
	\$28,195 72	
Total expenditures.....		<u>\$64,444 70</u>

## TRIAL BALANCE.

LEDGER, DEPARTMENT OF PUBLIC WORKS, DECEMBER  
31, 1886

	Dr.	Cr.
Water fund.....	\$ 1,239,945 66	
Water works.....	10,931,396 58	
Water works income.....		\$18,246,441 52
Water fund, suspended acct's.	180,292 72	
Water fund, general taxes....		2,713,878 53
Water loan bonds, 6 per cent.		133,000 00
Water loan bonds, 7 per cent.		3,490,000 00
Water Loan bonds, 3 $\frac{6}{10}$ per		
cent .....		333,000 00
Water loan bonds, canceled..		858,000 00
Water loan interest.....	5,930,539 73	
	<hr/>	
Carried forward,	\$18,282,174 69	\$25,774,320 05

# BOOK-KEEPER'S STATEMENT.

309

Brought forward,	\$18,282,174 69	\$25,774,320 05
Water fund, expenses and repairs .....	7,373,052 79	
American Exchange National Bank, N. Y.....	124,390 05	
J. W. Lyons, cashier.....	691 88	
F. C. Meyer, book-keeper....	300 00	
Meter department, stock account.....	10,082 31	
Water works shop, stock account.....	5,634 77	
Tapping department, stock account.....	4,744 75	
Deposits for hydrant wrenches Archbishop Feehan.....		790 00
Ogden, Sheldon & Co.....		1,773 43
Barrett, Todd & Cochran.....		1,734 23
John Tyrrell.....		250 00
Wm. Graydon.....		150 00
John D. Parker.....		250 00
John D. Parker.....		884 12
West Chicago Park Commissioners .....		1,130 57
S. H. Wheeler.....		250 32
C. J. L. Meyer.....		200 00
North Chicago City R'y. Co..		425 00
The Peshtigo Company.....		300 00
S. Myers.....		1,313 77
Julia F. Porter.....		185 90
Chicago Canal and Dock Co..		1,166 43
Adele F. Adams.....		638 10
Clara F. Bass.....		1,195 80
J. Q. Adams.....		124 69
Conrad Seipp.....		431 00
J. J. Mitchell (by E. Prussing)		399 40
E. A. Cummings & Co.....		916 82
Carried forward,	\$25,801,071 24	\$25,788,829 63

Brought forward,	\$25,801,071 24	\$25,788,829 63
Baird Bradley.....		1,929 48
L. H. Bisbee.....		264 14
Chicago & N.-W. R'y. Co....		593 25
Little Sisters of the Poor.....		500 00
J. U. Borden.....		1,179 28
E. F. Lawrence and J. M. Ballentyne.....		375 00
Chicago & Great Western R'y Co.....		882 00
Edson Keith.....		1,354 60
Leslie Carter, Trustee .....		2,088 15
C. L. Bonney.....		589 70
Benjamin Shurtleff.....		274 27
C. S. Bissell .....		290 18
W. F. Myrick.....		725 51
John White.....		396 05
Board of Education.....		800 00
Sewerage fund.....	13,468 48	
Sewerage surplus account....		5,500 00
Sewers, North Division.....	1,222,080 72	
Sewers, West Division.....	3,719,840 07	
Sewers, South Division.....	1,817,506 28	
Pipe account.....	4,541 53	
Brick account.....	209 60	
Wooden covers.....	3,323 36	
Iron covers.....	728 00	
Cement account .....	91 25	
Sand account.....	19 00	
Sewerage loan bonds, 4 per cent .....		458,000 00
Sewerage loan bonds, 7 per cent .....		1,675,000 00
Sewerage loan bonds, 4½ per cent.....		489,500 00
Carried forward,	\$32,582,879 53	\$28,429,071 24

## BOOK-KEEPER'S STATEMENT.

311

Brought forward,	\$32,582,879 53	\$28,429,071 24
Sewerage loan bonds cancelled		377,500 00
Sewerage fund general taxes.		3,895,832 43
General fund.....	•382 55	
Sewerage fund suspended accounts .....	111,548 77	
Galena & Chicago Union R.		
R. Co .....		382 55
Turner & Bond.....		725 00
Ogden, Sheldon & Co.....		900 00
West Chicago Park Commissioners .....		8,458 07
Catholic Bishop of Chicago...		4,805 00
Board of Education.....		4,677 50
Estate of H. O. Stone.....		300 00
Trustees of Presbyterian Theological Seminary.....		1,397 50
S. E. Gross.....		182 25
Baird & Bradley.....		1,320 00
C. B. Sawyer and J. L. Lombard.....		850 00
Seth Gage.....		300 00
Jas. U. Borden.....		603 00
J. L. Lombard.....		1,455 00
Lazarus Silverman.....		343 70
Morrisson, Plumber & Co....		225 00
F. B. Clark.....		625 00
John J. Hyland .....		725 00
Peoples Gas Light and Coke Co.....		800 00
C. L. Bonney.....		600 00
Robt. Millar.....		200 00
Chic. W. Div. Ry.Co.....		300 00
Martin McNichols.....		444 75
A. C. Brackebush .....		345 00
Carried forward,	\$32,694,810 85	\$32,733,367 99

Brought forward,	\$32,694,810 85	\$32,733,367 99
E. W. Morrison.....		500 00
Leopold Mayer.....		500 00
John G. Shortall.....		500 00
C. R. and A. B. Dewey.....		500 00
Theo. Lattan.....		100 00
Geo. L. Dunlap.....		500 00
Jos. Downey.....		200 00
L. Schoenbrunn.....		62 50
L. Morgenthau.....		62 50
J. J. Williams.....		100 00
E. W. Ackerstrom.....		100 00
C. C. Collins.....		500 00
W. A. Fuller.....		200 00
Chas. August Woerner....		100 00
James Arthur.....		125 00
Peter Ott.....		240 00
Wm. M. Dec, & Son.....		261 00
W. J. Anderson.....		292 00
A. H. Towner.....		320 00
A. C. Hesing.....		1,675 00
Jerome Beecher.....		156 60
Sewerage stock account ....	5,500 00	
Sewerage maintenance acc't.	40,051 74	
Appropriation fund.....	274,519 24	
Public benefits.....		110 72
Special assessments.....		625 32
Twelfth street viaduct.....		16,950 26
Indiana street viaduct.....		40,000 00
Kedzie avenue bridge.....		5,600 00
Jackson street bridge.....		99,465 00
Surplus account.....		42,087 68
State street bridge.....		9,628 81
Deering street bridge.....		5,000 00
Taylor street bridge.....		10,000 00
Carried forward,	\$33,014,881 83	\$32,969,830 38

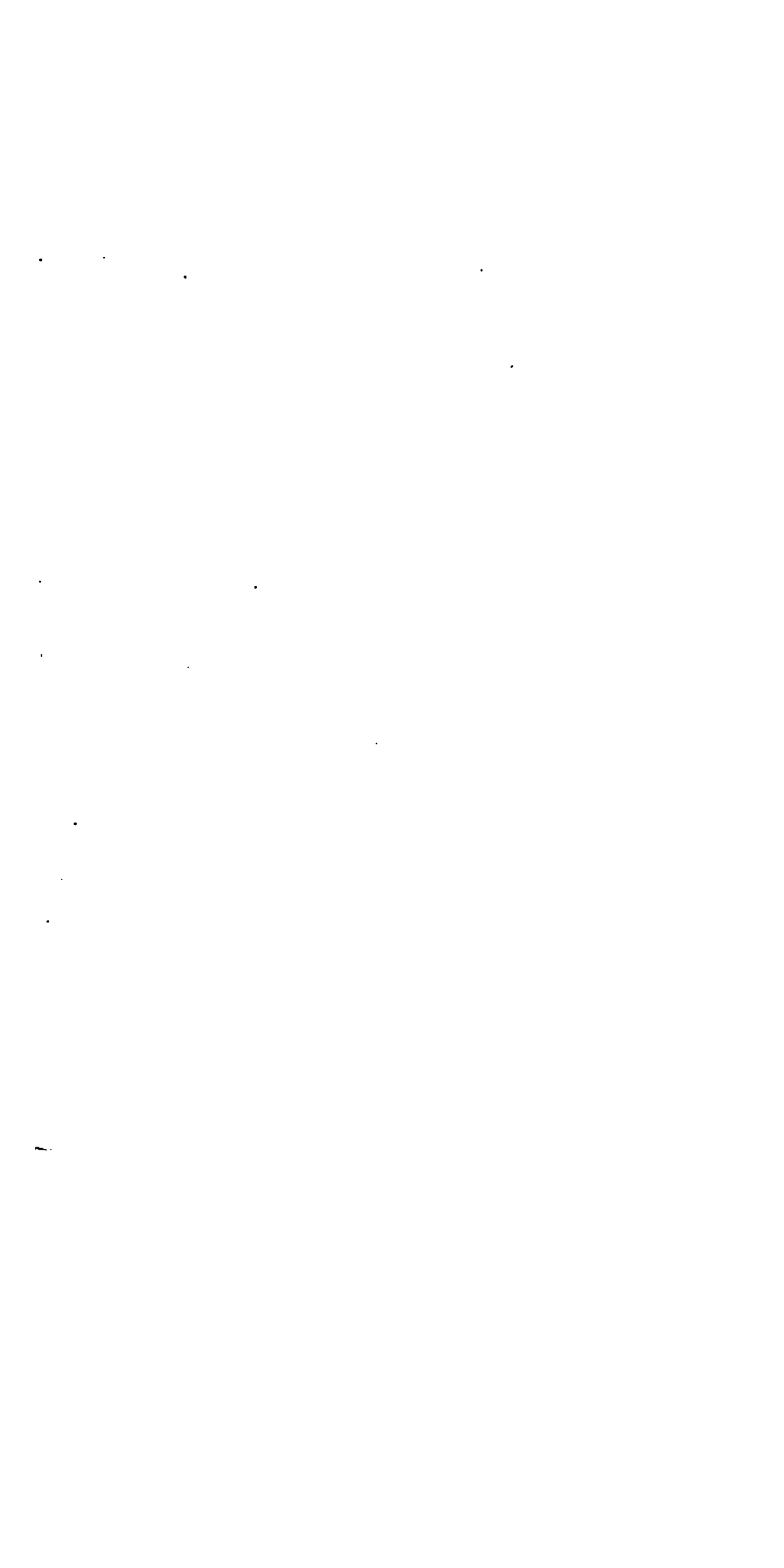
## BOOK-KEEPER'S STATEMENT.

313

Brought forward,	\$32,014,881 83	\$32,969,830 38
Webster avenue bridge. ....		10,000 00
Stock account. ....	5,982 32	
Eighteenth street bridge. ....		33,666 42
Special deposits. ....		7,367 35
City hall fund. ....	2,802 37	
City hall appropriation ....		1,688,717 14
New City Hall. ....	1,685,946 39	
Public Library. ....		31 62
	<u>\$34,709,612 91</u>	<u>\$34,709,612 91</u>

Respectfully submitted,

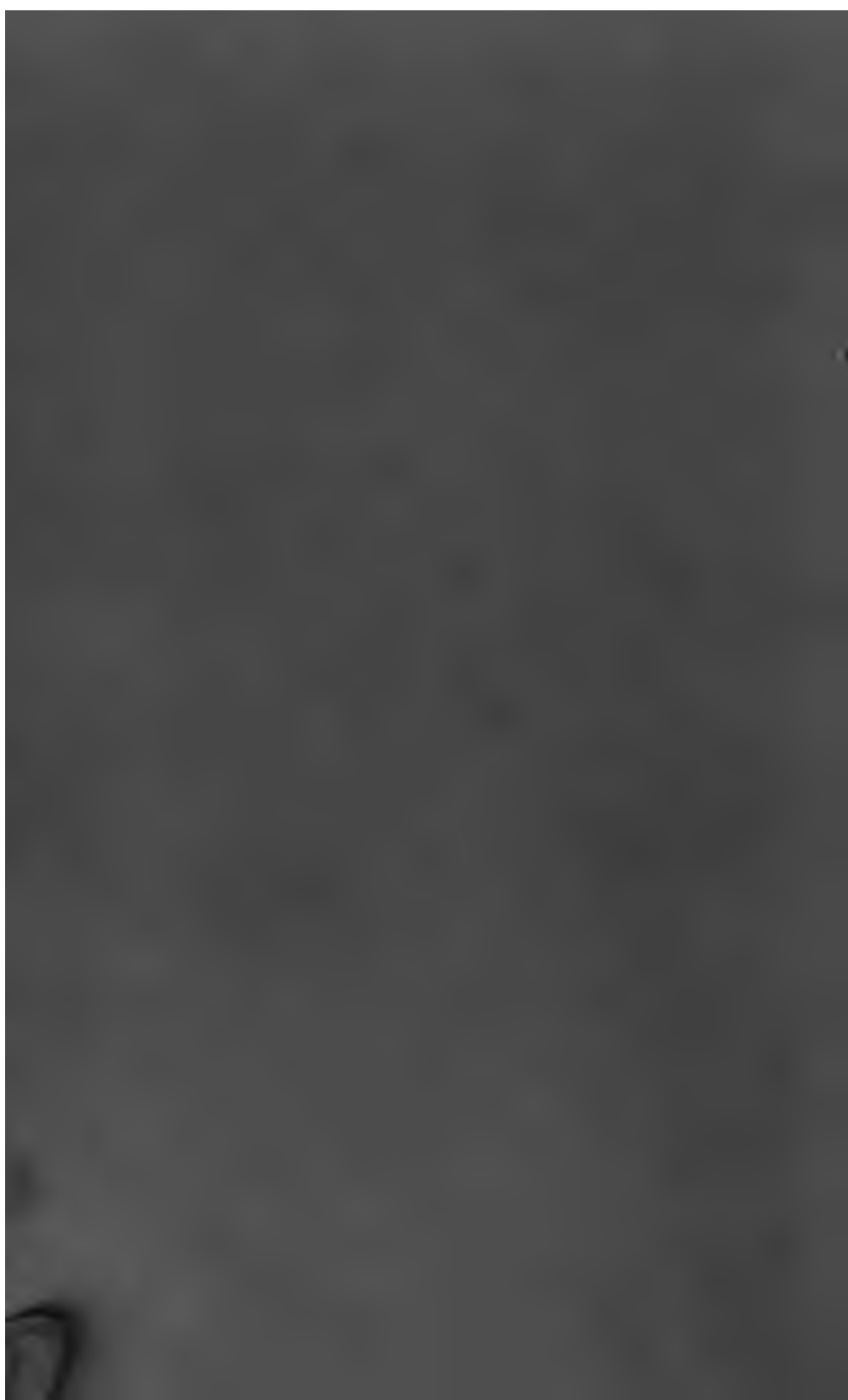
F. C. MEYER, *Book-keeper.*





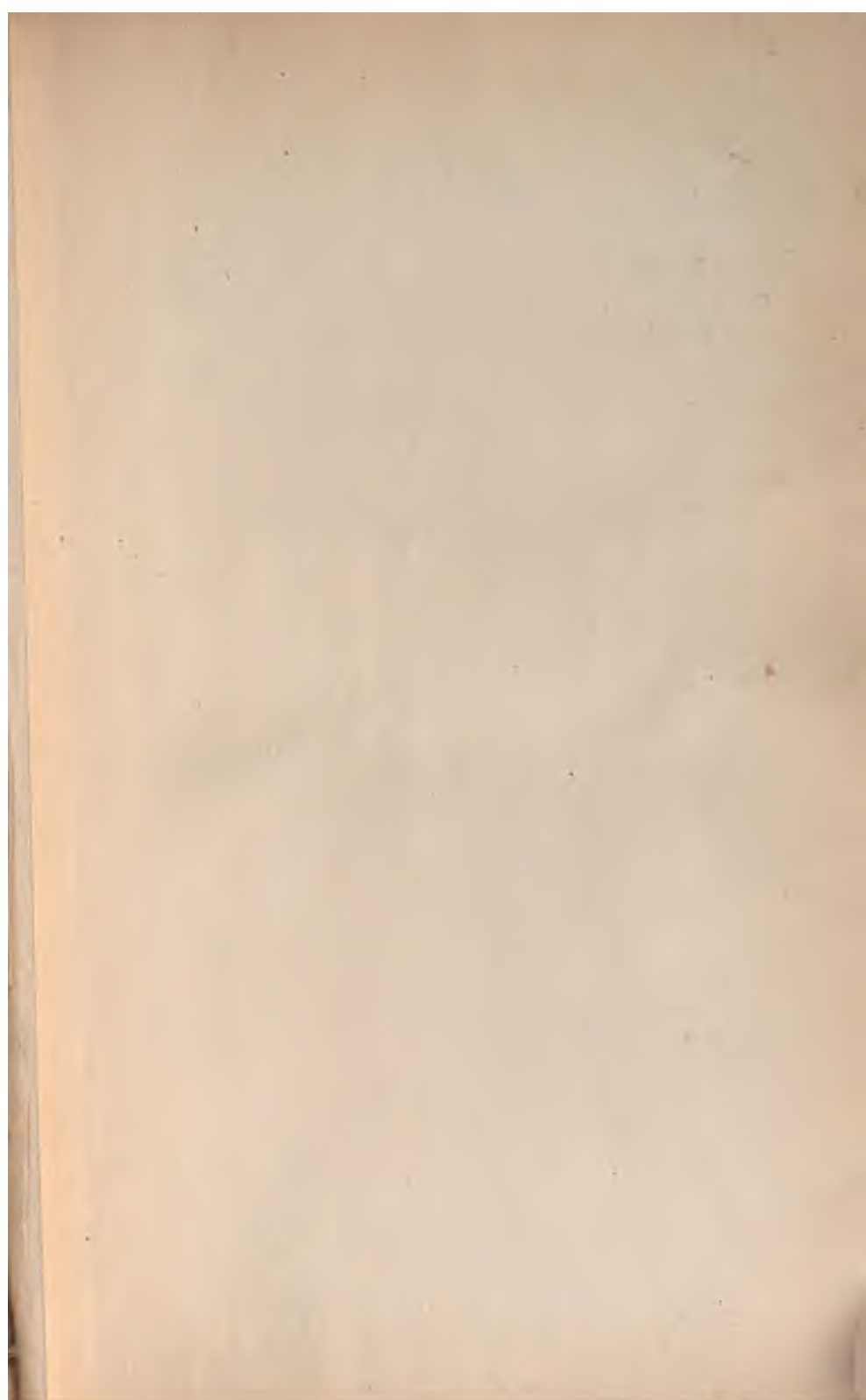












**This book is under no circumstances to be  
taken from the Building**

[illegible]

BDSEP 10 1970

